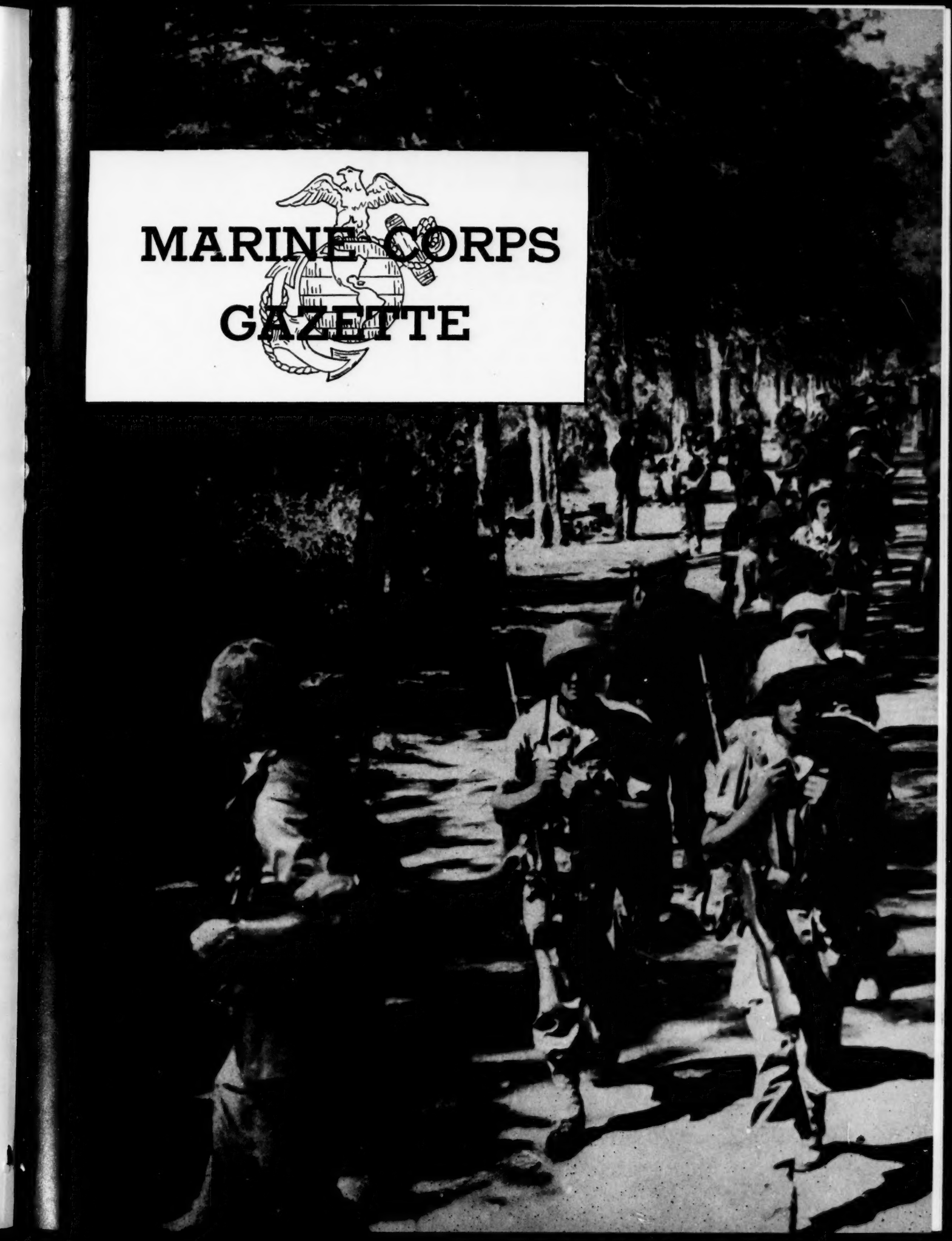
MARINE CORPS GAZETTE



This Month's Cover

THERE IS VERY LITTLE in their appearance to indicate anything out of the ordinary about this column of marines. These, however, are Dutch marines, moving along a road in Northeast Java after amphibious landings at Pasir Poetih, 21 July 1947. Their American training, equipment, and uniforms show clearly. This is a Wide World photograph. For more on the Indonesian question, read Ronald Stuart Kain's *The Netherlands Indies: Crossroads of the Orient*, beginning on page 30.

THE MARINE CORPS GAZETTE

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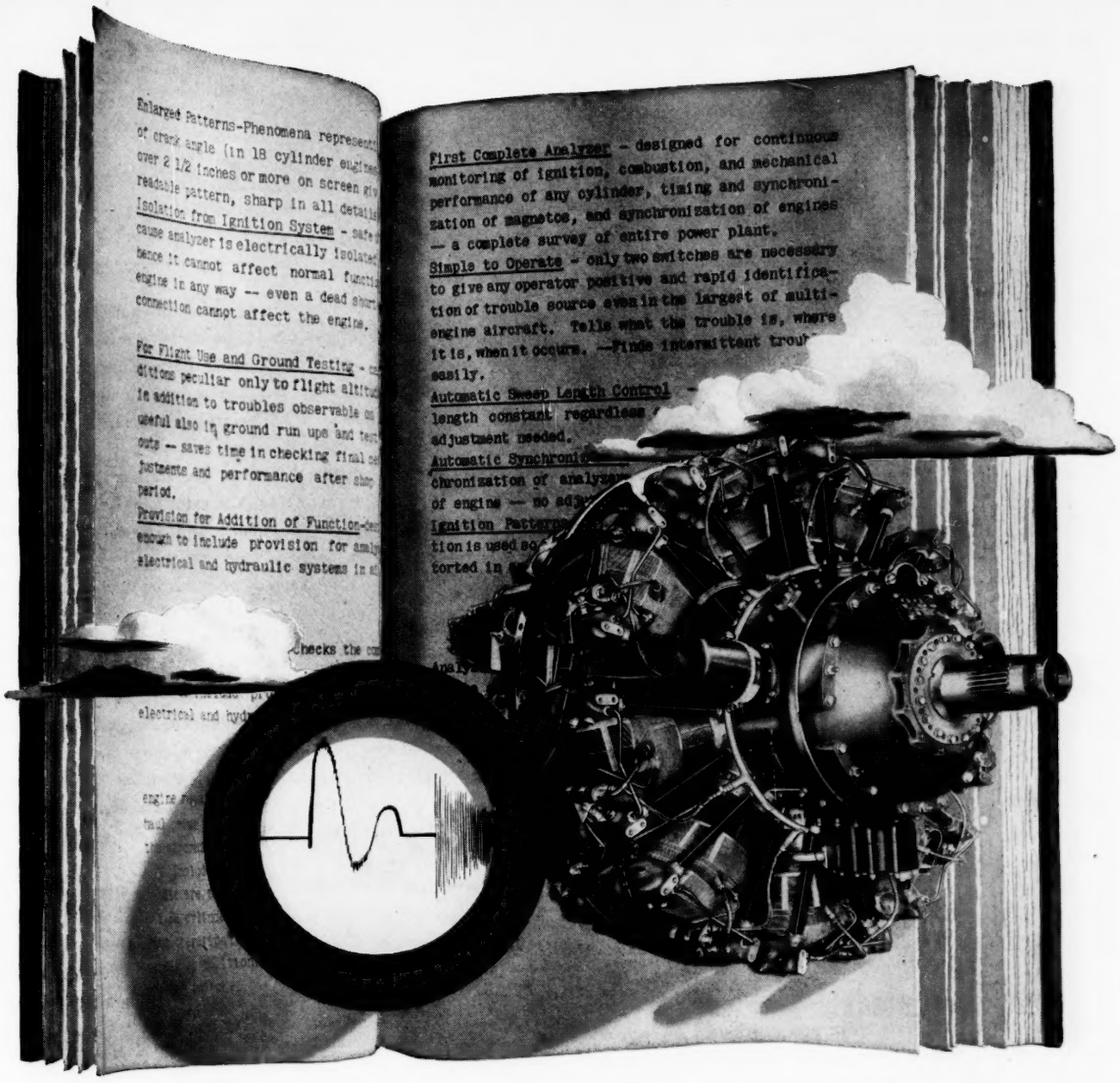
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TO THE EDITOR

Message Center

Poor Raw Material . . .

DEAR SIR:

In my estimation the Recruiting Division of the Marine Corps is indirectly responsible for the men who make articles like LtCol Heinl's *Thin Line of Tradition—II* necessary.

The problem begins in the recruiting offices where men are compelled to fill a quota given them by Headquarters, Marine Corps. In doing so they take what comes, and the Corps is beginning to feel the results.

A lot of men are enlisted just to be discharged, at a great deal of work and expense to the government, but think of those misfits that remain.

Why not stop the trouble where it starts by not forcing quotas, if undesirable men have to be accepted? Then any man worthy of the name, United States Marine, would be proud of the tradition which goes with so honorable a title.

WILLIAM W. LEE
Corporal, USMC.

Basic Injustice . . .

DEAR SIR:

The response to *Thin Line of Tradition II* was certainly gratifying to the many officers who are in accord with LtCol Heinl. If all officers who are sympathetic with this cause would concentrate just a few more of their efforts towards regaining a few of the lost traditions, the cause for which LtCol Heinl writes would be won. Such an article should be published under a separate cover and distributed to each and every individual marine with special emphasis in the recruit depots. If the embryo marines were given a more complete indoctrination in traditions of the Corps, there would be considerable less load on every officer and non-commissioned officer under whose jurisdiction these future marines will come. It is the pathway to regaining the great esprit de corps that we once maintained.

The following is a question that has favored the minds of the members of the First Basic Class 1946. The First Basic Class struggled through its period of instruction as enlisted men, and upon completion of its course received regular commissions on 2 April 1946. By virtue of receiving regular commissions we were not entitled to the uniform gratuity of $250 as were those who received reserve commissions. Receiving no uniform gratuity and no officer's pay during the period of instruction made it impossible for the majority of the class to purchase the required wardrobe of uniforms without going into debt.

The foregoing in itself would cause no question, but the following chain of events does. Shortly before the First Basic Class was commissioned, the Second Basic Class, which had received no instruction as yet, was organized, and all hands were commissioned second lieutenants in the reserve. Not only did the Second Basic Class draw officer's pay while under instruction, but it was entitled to the uniform gratuity of $250. But the straw that breaks the came's back is this: when this class completed its instruction and received its regular commissions they were dated back to that of their reserve commissions, or more specifically, prior to the date of the commissions of the First Basic Class.

This is like placing a plebe above a youngster at Annapolis or a junior above a senior at a university. What kind of a howl would be raised if a corporal were to be promoted to staff NCO prior to a sergeant? While the Second Basic Class may have produced some future Commandants and many fine officers, there is equal possibility of a member of the First Basic Class to make the grade, and I claim that it is only right that the First Basic Class should have the seniority over the Second Basic Class.

While many of us wonder if there is to be any adjustment in the future, it would also be interesting to know the why and wherefores of this occurrence, if it can be answered. It does seem as though somebody overlooked some 44 second lieutenants of the First Basic Class. May God and Headquarters look down upon our class with benevolence in the future.

CHARLES W. BLYTH
2dLt, USMC.

NCO Promotions . . .

DEAR SIR:

Congratulations to the writers of *Competitive Promotions*.

At this organization we have an examination between 15 and 20 pages long which includes a sheet for entering scores in accordance with the system employed by the writers of *Competitive Promotions*. This examination sincerely seeks to find who the best men in the organization are. We are not unaware that some organizations may only ask a man 10 questions, consider nothing else, and still find him qualified for promotions. The suggestion made that one central organization should issue classified examinations periodically on request of organizations and that the results of such examinations be entered in the men's SRB is certainly one worth considering.

Another point worthy of serious consideration is that if a

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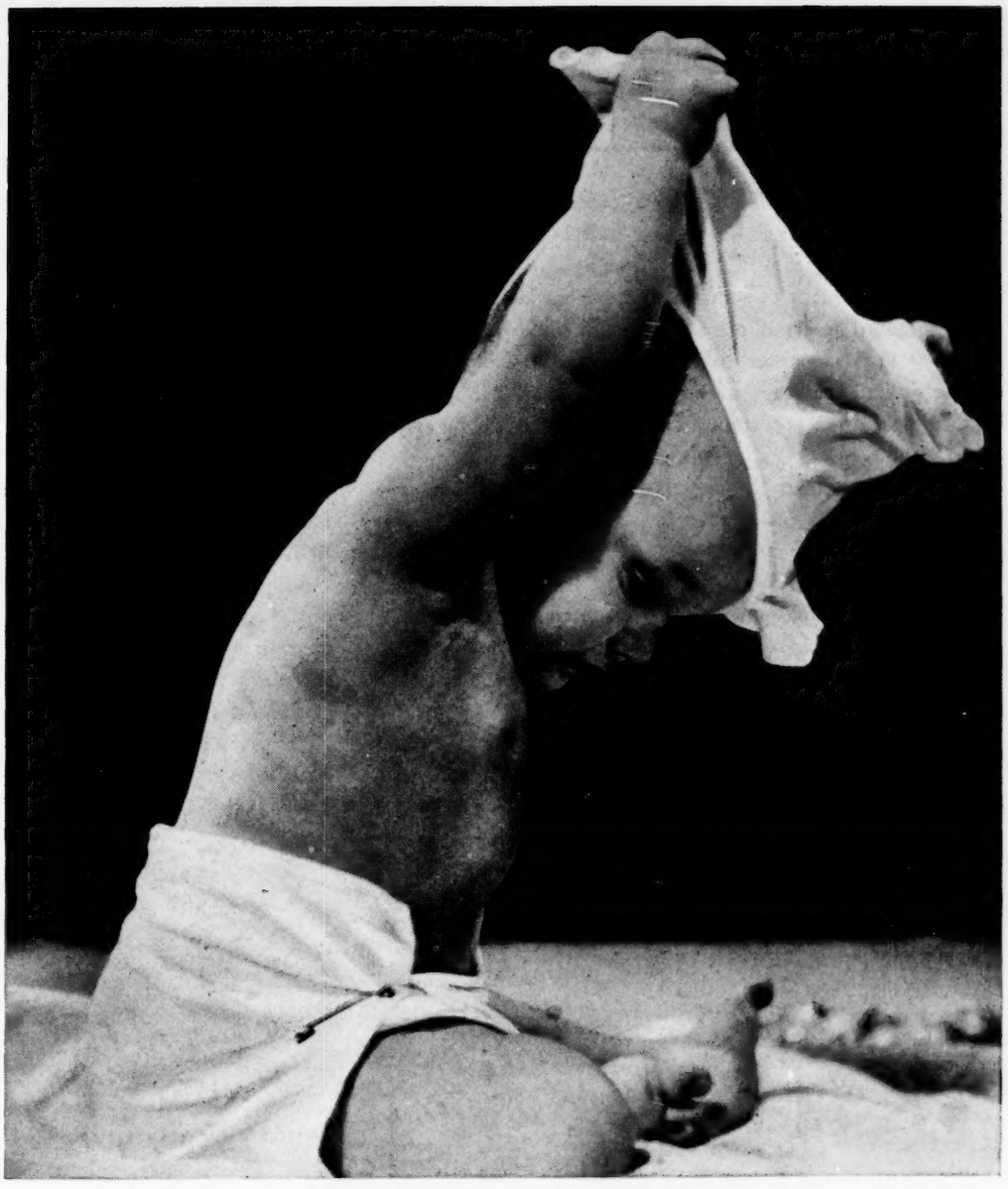

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BELL TELEPHONE SYSTEM

Message Center

continued from page 2

man desires to improve his military knowledge he cannot take correspondence courses unless he is a staff NCO. True, it is not practical to coach PFCs, Cpls, and Sgts in the complete Basic Course. But it is a shameful fact that last year when two sergeants (clerks) in our office tried to enroll in the MCS subcourse in "Administration" they were refused this course on the ground that they were not staff sergeants. Should a man be denied the opportunity to improve his military knowledge?

When one considers the material and men available to the MCI for preparing its courses in non-military subjects one cannot help but wonder why the MCS cannot be expanded enough to prepare:

(1) Courses (correspondence or self-teaching) in booklet form covering subjects *all* enlisted men are required to know. There could be a booklet for each rank from PFC on up. (PFC's Course, Corporal's Course, etc.)

(2) Courses (correspondence or self-teaching) in booklet form covering the work in each functional field.

The above courses would be similar to one used by the Navy several years ago and which I believe are still used. Completion of a course for the next higher rank would be *one* of the requirements for eligibility for consideration for that rank.

Let's promote the best men but at the same time let's give a man a chance to prepare himself for that rank. Local instructions are usually not complete enough or at least progress too slow.

JOSEPH B. COURVILLE
MSgt, USMC.

DEAR SIR:

Permit me to voice my opinion on LtCol Charles L. Banks' and MSgt L. J. Donahue's article in the June issue of the GAZETTE regarding their proposed system for *Competitive Promotions*.

From the standpoint of an NCO desiring promotion, which I know is competitive . . . and that is as it should be . . . let me add to the chart. Under LEADERSHIP and MILITARY BEARING, there should be added with corresponding points, number 14 on the reverse side of the NCO fitness report in the case of NCOs. This indicates an officer's opinion of the man's general soldierly usefulness. Too, number 16 should be considered strongly by any promotion board. The officers serving as members on such a board can determine various characteristics of the man reported on, which may mean the difference between a good and poor NCO.

For LENGTH OF SERVICE, the one point per month system is fine. However, should the man that has been sitting in the United States throughout his career with the Corps be entitled to the same promotional benefits as that man who has served a great deal of his time overseas? One point should also be added for each campaign or engagement to further differentiate between those serving overseas and those who actually participated in combat. It should be similar to that of the discharge point system.

Along with MARKSMANSHIP QUALIFICATIONS there should be added the general training record of the individual (i.e., drills, classes, tests) to determine the basic military knowledge of that individual. Above all, the marine should know his basic soldiering as thoroughly as he does his primary SSN specialty, whether clerk or infantryman.

Points should, by all means, be deducted for courts martial and offenses. However, some points should be added for award of the Good Conduct Medal and Bars denoting subsequent awards. True, a man who has been awarded a summary court martial can win the Good Conduct Medal, but the points added for the medal still would not bring his total of points above that amount suffered as a result of the "court." It would, however, in a tie, give the man who has a medal the advantage . . . since as it currently stands, the Good Conduct Medal means very little.

And in closing, corresponding points should be added, indicative of the length of service in the particular SSN or functional field for which the man is to be considered for promotion. A man experienced in, and who has performed a

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WORLD UNDERSTANDING THROUGH WORLD COMMUNICATIONS

Message Center

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particular type of duty for a longer period of time certainly warrants promotion in that particular functional field more so than does the man who has just "changed his SSN."

LOUIS A. CAPOZZOLI
SSgt, USMC.

Preference for Reserves . . .

DEAR SIR:

In reply to Sgt N. B. Wynn's letter (May 1948) who replied to my letter (March 1948), I believe the Sergeant has misconstrued the contents of my letter. I only implied that there would be more enlistments in the regular Marine Corps if preference would be given a reserve over a man who had had no previous military service.

I would also like to inform Sgt Wynn that our battalion is composed of approximately twenty per cent ex-regular Army, Navy, and Marine Corps personnel who have had anywhere from two to fifteen years' active service. It is composed of men who were members of the original 1st, 2d, and 3d Marine Divisions, men from the original Fourth Marines in China, and men who served with the old Fifth and Sixth in Iceland. A number of these men have been PFCs and corporals in the regulars for a cruise or more.

JAMES P. SEPSIS
Sgt, USMCR.

Flare Illumination . . .

DEAR SIR:

Maj Donovan's article *Know Your Signals* that appeared in the June issue of the GAZETTE, was interesting, particularly since I am cognizant of new type signal flares that are being tested. These experimental flares are essentially models of the standard ground signals except for a new filler mixture which has been substituted for the standard filler to increase the candle power of the flare, and therefore produce a superior illuminant and signal.

Also under development and test is an effective hand-held signal that requires no accessory equipment to fire the projectile. It is obvious that a signal of this type, requiring no additional equipment is the most efficient and convenient method of projecting ground signals.

I would like to express some of my opinions of ground signals. The use of numerous types, colors and combinations of flares for ground signals is over-emphasized. Since ground signals are emergency means of communication to be employed when other communication has failed, it does not seem feasible to load the infantryman with various types and colors of signals when one or several will suffice. It is a problem keeping troops supplied with the various flares and it is generally coincidental that the required signal or combination of signals are available when needed.

Tests have disclosed that even experienced men have trouble distinguishing between the different colors. At night it is particularly difficult to distinguish between amber and white flares when observed from observation posts up to five miles distant from the firing point.

It is true that SOPs would simplify, somewhat, the use of ground signals, but I believe the confusion resulting from having to remember 12 or 13 combinations of flares would definitely limit its use, especially since the signal combinations have to be changed frequently to safeguard security.

CARL A. SACHS
Major, USMC.

The first postwar reunion of the 1st Marine Division will be held in Boston on August 7th and 8th. Requests for hotel reservations may be made by writing the Boston Hotel Association, Room Reservations Section, Hotel Statler, Boston, Mass. For further information write Division Association Headquarters, 61 Billerica St., Boston 14, Mass.

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In the last year or so, I've had a lot to say about a lot of things. If you have been reading the GAZETTE you know that the other members of the Ale and Quail Club and I are a pretty outspoken bunch of guys. We don't claim to have licked all the Marine Corps' troubles, but we do think we've made a fairly good start. Do these topics interest you?

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More on Leadership
Good NCOs Are Made, Not Born
Esprit de Corps
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Dear General,

The Royal Marines Association has just opened a new Centre for all members and their friends at 5, Talbot Square, Paddington, London, W. 2.

All members of the Association would be greatly honoured if all officers and men of the United States Marine Corps, while serving in the British Isles, would consider themselves as honorary members of the Club. They will be very welcome to make full use of the various amenities of the Club at any time.

Yours sincerely,
R. H. CAMPBELL
Major General, C.B., M.C., R.M. (Retd).
President.

General C. B. Cates,
Commandant, United States Marine Corps,
Washington 25, D. C. U. S. A.

OFFICE OF THE COMMANDANT
HEADQUARTERS, MARINE CORPS
Washington 25, D. C.

My dear General:

It gives me much pleasure to acknowledge your letter of May 31, 1948. The activities of the Royal Marines Association are always a matter of friendly interest to us.

The officers and men of the United States Marine Corps are honored by the invitation to consider themselves honorary members of the Club while serving in the British Isles. The privilege of being able to use the various facilities of the Club is greatly appreciated.

We extend our best wishes to all members of the Association on the opening of the new Centre.

Yours very sincerely,
C. B. CATES,
General, U. S. Marine Corps

Major General R. H. Campbell, C.B., M.C., R.M. (Retired),
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The Marine Corps Gazette

PROFESSIONAL MAGAZINE FOR THE UNITED STATES MARINES

AUGUST 1948

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WHAT'S IN A NIPPONESE NAME? ..... IV COVER

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This Month and Next

Next month we are fortunate in having Alan Villiers, the noted traveler and lecturer, give us a run-down on *The Persian Gulf.* This is in continuation of our series of background articles on strategically important areas. Capt Villiers' experiences as a windjammer skipper are familiar to *National Geographic* readers. His activities as a commander of a British LCI flotilla are less well known.

Another nautical writer is RearAdm Miles R. Browning who has appeared frequently in the GAZETTE over the years. Next month he gives the why and wherefore of *Convoy Escorts.* Also in the September issue is *Naval Gunfire at Guam* by Comdr I. E. McMillian, USN. This concludes our series on the development of naval gunfire support techniques.

Bertram Vogel switches from his favorite subject of writing naval actions from the Japanese viewpoint to give us a fresh idea in establishing performance standards. In *Fitness Reports from Down Under* he wants the juniors to mark the seniors as to their proficiency in grade.

Base Plate McGurk works over the *Esprit de Corps* intangible in the September GAZETTE. Incidentally, the Base Plate adventures are now available in booklet form. *Base Plate McGurk, Company Officer* is being offered by the Gazette Bookshop for fifty cents. The twelve articles contained are substantially the same as have appeared in the GAZETTE.

Strengthen the Beach Assault

THE BEACH ASSAULT IS THE AMPHIBIOUS HEART OF the amphibious operation, the decisive phase upon which the entire operation hinges. It is that part of amphibious warfare which is different from, and more difficult than, normal land warfare. Yet, despite our great general progress in amphibious warfare in recent years, the beach assault has remained in essence an infantry assault, very largely unsupported during the initial critical action to gain that vital foothold on the hostile beach upon which every amphibious operation must be pivoted. In this phase of amphibious operations we, frankly, must still keep our fingers crossed, depending upon hostile weakness rather than our own power. We land with more hope than certainty that we won't be cut to pieces and thrown back into the sea.

By LtCol Arthur J. Stuart

Our amphibious doctrine in World War II, so successful and so superior to that of World War I, had this one great weakness. It employed infantry, supported only by armored amphibians, to assault the hostile beach. The armored amphibian was designed to fight waterborne, and it was altogether invaluable in its primary role of leading assault infantry ashore and destroying or neutralizing hostile beachline weapons commanding the boat lanes. However, once infantry had disembarked and moved across the sands of the beaches, the armored amphibians' designed role was over and it ceased to have any major significance as a supporting arm. Once the assault infantryman of the last war had crossed the foreshore, he *stood essentially alone* for a very definite period of an hour or more until effective support was built up ashore.

Present amphibious doctrine, though a far cry from early Culebra efforts, still leaves the infantry virtually unsupported for the first critical hour ashore. We still land with more hope than certainty that we will not be thrown back

Infantry, realizing its limited offensive power while yet unsupported, avoided initiation of other than the most urgent assault action and generally but sought to hold on and cover the landing of tanks, naval gunfire and air support control agencies, and artillery. The general concept was thus to wait until the landing of support before undertaking serious assault action beyond the beachline in order to "do it the easy way."

The typical beach assault of the Pacific War ran generally according to the following pattern. Hostile defenses in the landing area were destroyed to the maximum by intense preparatory sea and air bombardments. The approach of assault landing waves was covered by very heavy pre-H-hour fires, lifted inland at the last moment as assault elements closed on the hostile beach. During the actual landing, naval gunfire support ships and support aviation maintained post-H-hour scheduled fires on terrain inland and major hostile approaches; kept terrain in the general vicinity of the landing area under close aerial surveillance; and brought all suspected hostile activity outside safety limits under aerial or naval bombardment to isolate the landing area. Armored amphibians usually constituted the first assault wave followed by assault infantry battalions. The armored amphibians, operating as waterborne tanks, brought identified surviving hostile targets under point fire and generally sprayed the entire beachline with fires to neutralize enemy weapons. Assault infantry disembarked from amphibious vehicles or landing craft at the water's edge and, covered by armored amphibian fires, rapidly deployed in assault across the open beaches, assaulting and seizing the first cover on the foreshore. Assault infantry was then generally unable to move beyond the first cover on the foreshore initially seized and, with the exception

Army LVT(A)s go in at Okinawa. Once the assault had crossed the foreshore, the waterborne armored amphibian could seldom further the advance, except in the case of expansion of the flanks

of minor improvement of positions, largely concerned itself with covering later waves until greater strength could be landed.

Once assault infantry had crossed the beach and gained the first cover on the foreshore, the LVT(A) could seldom support the advance from waterborne positions, except in the case of expansion of the flanks. To do so, the LVT(A) had to accompany the infantry on land as a tank or assault gun, with its lightly armored lower hull rendering it vulnerable even to armor-piercing small arms fire, and with antitank mines and other obstacles usually barring the way; or, the LVT(A) was employed as an artillery piece to provide direct fire support. This latter employment, while theoretically practical, was never successfully executed during the first hour of an opposed beach assault. Thus while the LVT(A) provided invaluable assistance in the approach of the beach and the infantry debarkation, deployment, and movement of first cover, it never became an effective support weapon during the remaining 59 minutes of the first hour of the beach assault.

Tanks, landing sometimes on fixed schedule and other times on order, hit the beach "as soon as practical." Actually, the tank landing time ranged all the way from H-plus-18, the earliest Marine landing of tanks of the war, to H-plus-two or three hours, with an average landing time of about one hour after the first landing of assault infantry.

Naval gunfire and air direct support control personnel, hampered by cumbersome and exposed communication equipment, landed as soon as possible in the later assault infantry waves, or on order, *theoretically* to provide very early direct support; but actually such control agencies, upon which direct support is entirely dependent, did not gain positions providing adequate observation and minimum cover for personnel and radio equipment until an average of from one to two hours after the first assault wave hit the beaches! The record shows that the number of called air strikes and gunfire missions in direct support of assault troops during the first hour of our landings of the past war were *in fact practically nil*, although there were a very few such missions successfully executed, chiefly on the flanks of the landing area. This was not due to the absence of missions or targets, for it goes without saying that there were a multitude of urgent targets throughout the beach assaults at Tarawa, Peleliu, and Iwo Jima! The targets were there but the support control agencies simply *did not become operative during the first hour* or so due to inherent difficulties of observation and communications characterizing beach assaults.

Artillery landed its forward observers with assault elements but landed pieces much later. As a rule, artillery support was initiated in the Pacific War during the early afternoon of D-day, although it was not fully effective to include all corps artillery until Dog-plus-1 day.

Thus, the beach assault following the assault ship-to-shore movement of the last war was for the *first critical hour an infantry assault.* This was realized by our amphibious higher commands and, while every effort possible in the field was made to shorten the period until effective combined arms assault action could be initiated, extra-

Tanks landing on Guam's crowded beaches. Landing sometimes on fixed schedule and other times on order, wartime Marine tanks usually never hit the beach until an average of H plus one hour.

ordinary measures were taken to insure that no serious hostile resistance would be encountered during the interim period of early assault weakness ashore. This was achieved through exceptionally heavy preparatory bombardments to neutralize the enemy initially *within* the landing area and, secondly, by preventing the enemy from bringing *outside* force to bear by laying down a curtain of isolation fires around the landing area and the liberal use of deep supporting fires.

Thus the success of our beach assaults must properly be attributed more to *the efficacy of these extraordinary measures to insure the enemy's local weakness* by intense preparatory bombardment and effective isolation of the landing area—*rather than to the power of our own initial assault*. However, the margin of success in many cases was dangerously slender, and the price was often exceedingly high.

IN THE BEACH ASSAULT, as always in warfare, it is *fundamentally dangerous* to depend upon hostile weakness. In future amphibious warfare who can say that an enemy will not be able to devise new types of fortifications which will better resist preparatory bombardments? Certainly an enemy will seek to do this. Perhaps more important, our isolation fires to prevent the enemy from bringing outside force to bear on the landing area during the assault period may be far less effective against future enemies than against our Pacific enemy. In this connection, there are two types of counterattack not experienced during the Pacific War which we likely may encounter in the future, and against which the effectiveness of our isolation fires is yet unproven. These are the *armored* counterattack and the massed *artillery* counterattack employing proximity fuzed projectiles. For example, should an enemy employ large-area smoke screens to cover his armored counterattack approach, or his artillery positions in the case of the artillery counterattack, the effectiveness of our isolation fires in preventing such forces being brought to bear on our inherently weak assault forces seems most problematical. And a *combined armored-artillery* counterattack could conceivably defeat our present means of isolation of the landing area.

Even if hostile reactions not encountered in the Pacific could be ruled out, it would still remain highly desirable that we utilize the time now available to us to develop a combined arms beach assault commencing at H-hour. The forward movement of the assault would then *never stop* but would continue inland *rapidly* to seize key terrain and observation commanding the landing area. Exposure to observed indirect fires would be shortened, at the same time rapidly gaining dispersal room ashore for following landing waves. The combined arms assault is the surest way of preventing the assault becoming bogged in a narrow strip along the beaches for hours and days, without adequate dispersion and more or less at the mercy of hostile fires—which cost us dearly on occasion during the recent war. The combined arms assault is *the best insurance that early hostile counterattacks can be beaten off* of whatever type. Should an enemy successfully bring tanks to close with our assault landing elements, it is foolhardy to believe that unsupported assault infantry alone could stop them. In such an eventuality,

At the war's end rocket launchers were mounted on our medium tanks, increasing fire power potential.

combined arms power would become an *all-important essential to success and even survival itself*, for an effective antitank defense is today achievable only through the coordinated employment of combined arms.

Consider first the case of tanks, the most powerful assault weapons of all ground warfare. The power of the tank-infantry team has been proved, and tanks and infantry have far greater assault power than infantry alone. Attempts to use armored amphibians as land tanks have met with disaster. The proper timing of the landing of assault tanks in an amphibious operation is simply resolved—*they must be landed in strength with the assault.* Therefore, to strengthen our beach assault, we must not only have more tanks but we must also land them in *their normal assault formation* where they are most effective—with or slightly preceding assaulting infantry, not an hour or more later!

THERE ARE really no insurmountable difficulties preventing the landing of tanks in the first assault waves. The general limitations in connection with the very early landing tanks are: the vulnerability of tank landing craft, the obstacle effect of beach minefields, and the problem of determining in advance suitable tank landing areas. These difficulties have all been somewhat exaggerated in the past. In conjunction with our meager overall tank strength, they have been responsible for our conservative policy of omitting of tanks from early assault waves.

The bugaboo of vulnerability of large tank landing craft in the past has *little foundation in fact.* Less than a fraction of one per cent of the hundreds of Marine tanks landed during the Pacific War were lost through destruction of tank landing craft. Covered by pre-H-hour bombardments, there seems to be really no reason why suitably designed tank landing craft cannot land in the first or any assault wave. Such landing craft should be of the individual-tank type to provide dispersion and a minimum target; they should be shallow draft, and of maximum speed; and finally, they should provide effective use of tank turret weapons during the beach approach, necessitating relatively low gunwales and a low or sectioned ramp for over-ramp fire. While there is every reason to believe that assault tanks can be satisfactorily landed from such craft without prohibitive losses, the tank flotation device completely eliminates the factor of vulnerability of tank landing craft by elimination of tank landing craft themselves. Floated tanks are launched from ships well off the hostile beach. Flotation device-equipped tanks ride low in the water and present a small target of little more than the heavily armored tank turret. Properly compartmented pontoons insure buoyancy despite punctures and enemy damage. The floated tank can effectively employ all turret weapons during the beach approach and is a far more stable gun platform than the armored amphibian. If World War II steel pontoon type flotation devices can be improved to provide greater speed and better maneuverability, they will constitute the *optimum method of landing assault tanks.*

UPON THE ARRIVAL of tanks on the hostile beach the problem of beach mine clearance immediately arises, and must be solved to permit the assault tank advance inland. The fires of tanks in water defilade are briefly of considerable value but just as with armored amphibians are quickly masked by the friendly infantry as it pushes over the beaches. For this reason time-consuming manual mine clearance is not good enough. There are several seemingly better solutions open to us. One is adaptation of line charges to give positive instantaneous mine clearance. Rocket projected line charges can be launched from tanks themselves or from amphibian vehicles. Or perhaps aircraft could better lay such charges or ships or craft launch them. Massed rocket fires are another possible means of speedy mine clearance. Perhaps mine-clearing tanks of the flail, mine-exploder, or mine-excavator types can be improved to become sufficiently reliable. The point is that the presence of beach mines can be considered normal as a cheap defensive means in any defended landing area. The problem is known. It can be overcome with sufficient effort. Beach mines must *no longer prevent us from landing tanks in their optimum position in the amphibious assault formation, and they*

must no longer be permitted to result in the separation of tanks and infantry in the critical assault over and beyond the beaches.

The former necessity to delay the assault tank landing until reconnaissance ashore could determine "suitable tank landing areas" has passed with the improvement of photographic and amphibious reconnaissance techniques, and with the vastly improved performance of tanks. With information now normally available to planning staffs, suitable tank landing areas can be selected in advance and tanks landed with confidence in the initial assault.

So, with but relatively little effort, we can land tanks with the initial assault—either preceding, with, or immediately following assault infantry, depending on the nature and closeness of terrain as in any tank-infantry asault. *Thus we can, and must substitute the tank-infantry assault for the infantry assault in amphibious operations.* This is the most urgent, and perhaps the easiest, step in achieving a combined arms beach assault.

THE PROBLEM of developing effective, continuous direct naval gunfire and air support is simply one of achieving a workable means of control. To render these tremendous instruments of destruction pliable to the needs of the ground assault and as effective in direct support as they presently are in general support during the beach assault, rather than beginning one or two hours later, requires but the perfection of control equipment and techniques *specially adapted to the conditions of the beach assault.*

Control of any close supporting fires basically requires that control agencies be able to see the enemy, to see their own assault troops, to observe the impact of the supporting fires, and possess communications to the supporting arm or origin of fires. The inability of tactical air control personnel to obtain initial observation has in the past constituted the major limitation upon the effectiveness of such control agencies, with communications difficulties running an important second. But these difficulties suggest their own solution—*special armored communication-observation vehicles for gunfire and air support control use.*

The difficulty of observation to the front during the beach assault is inherent in the nature of the amphibious operation. Until the assault proper has progressed several hundred yards inland, the rear consists of water or flat beaches. This is in distinct contrast to normal land warfare where overlooking terrain features can be utilized as observation posts sufficiently in rear of the assault that spotter and control personnel do not become directly involved in the assault. In the beach assault not only is the rear flat and devoid of cover but it *simply doesn't provide observation, being below, rather than overlooking, the back shore and terrain inland.* In addition, terrain is seldom cleared or cultivated to the water's edge, and scrub growth, high grasses, bushes, and even timber characteristically fringe shorelines and are never completely denuded by the preparatory bombardment. Smoke and dust from the pre-H-hour bombardment and the assault further reduce visibility. The result is that *little if anything can be seen of the assault from waterborne control vehicles once the assault has crossed the beaches.* Attempts in the past by control personnel to use pack radio equipment and accompany the assault resulted in a high percentage of casualties to both personnel and equipment. When such unprotected control parties did not become casualties, they became involved in the assault and were generally unable to carry out their function of control.

THESE DIFFICULTIES of observation and communication have in the past precluded the exercise of practical control necessary to initiate direct gunfire or air support before the second hour of the landing. They are the real reason the number of direct support gunfire missions and air strikes executed during the first hour of the beach assaults of the past have been exceedingly few. *This near-negligible early direct support has been due to inability to call and direct such missions rather than the absence of targets.* Naval gunfire and combat aviation were not, and could not, be employed to blast the way clear until control agencies could first reconnoiter and then tediously work their way forward to a point from which the hostile strongpoint could be seen—all the time manhandling communication equipment—some hour or so later.

This is not good enough, for much may happen in the interval of an hour. We must insure that in the future we can promptly tap the potential of hundreds of naval guns offshore. The same is true of harnessing the great power of combat aviation to render early direct support as well as general support.

Can this be done without armored communications-observation control vehicles?

Aerial observation under beach assault conditions is not sufficiently accurate for direct support control. Water is flat; overlooking points of vantage are lacking in the rear of the beach. It follows, then, that gunfire and air support control agencies must *accompany the ground assault.* To do this they must have personnel protection and protected communication equipment. To achieve both, and yet accompany the assault, the armored observation-communication vehicle is the logical answer.

Such observation-communication vehicles could be special type vehicles, or, probably better, modified standard tanks. By elimination of a part of the ammunition storage and installation of suitable radio equipment, tanks could be effectively employed and would be indistinguishable to the enemy from combat tanks. In this connection, the use of tanks as control-observation vehicles in the

Deep-fording gear as used by Marine tanks during recent Camp Pendleton, Calif., maneuvers. These improvisations increase amphibious utility, but are no substitute for true flotation equipment.

direction of artillery fires and air support was extensively and successfully employed by armored divisions in the European War. High point of vantage and the panoramic vision cupola insure good observation; personnel have excellent protection and can use maps, and reliable armored communications are always at hand. Such vehicles in conjunction with assault tanks, which we have seen must lead the initial assault, would be inconspicuous. Their actual disposition in the assault would be overwatching positions (similar to command tanks) slightly behind assault tanks and withdrawn from the actual assault action. Remote control radio equipment would permit ground observation where desirable, still employing tank-mounted radio.

These armored-communication vehicles would be mobile and could move to observation positions as required by the tactical situation to direct and control close naval gunfire missions and air strikes commencing at H-hour. They should be provided in sufficient numbers, however, to insure total coverage of the assault front without long lateral movements. The overhead of such vehicles *should be far more than compensated for in making direct air and gunfire support a reality commencing at H-hour.* Such vehicles would, moreover, under many conditions find extensive use in the action following the beach assault. For example, their use would *proof our gunfire, artillery, and air direct support control agencies against neutralization by hostile VT artillery.*

So far we have discussed means by which tanks and direct naval gunfire and air support can be added to the beach assault. What about artillery? The practical difficulties of achieving artillery support of the initial beach assault are perhaps greater than those associated with tanks, and naval gunfire and air support. But the need for artillery cannot be filled by tanks or aviation and can only be partly filled by naval gunfire.

DESPITE THE GREAT VALUE of artillery in all subsequent action, the role of amphibious artillery *will never be complete until it can participate in and support the critical beach assault.* Artillery has too much value in the assault for us to be content with its complete omission during this vital phase. Amphibious artillery must eventually be made truly amphibious; it must be further adapted to amphibious warfare to provide support throughout the beach assault. Great effort may be required to achieve a truly amphibious artillery arm but it can be done—if we determine that it shall be done. Sometimes we are too prone to accept that which we have today as the ultimate, and too often in our thinking we tend to consider the late entry of artillery in the amphibious attack as fundamentally unavoidable, accepting it as permanent. What are these difficulties preventing effective artillery support of the beach assault which in the past have been accepted as near-insurmountable?

Artillery requires depth. We cannot depend on emplacing artillery on off-lying islands. In the amphibious attack, the problem of depth is basically that of overcoming, or utilizing, the water-rear. A logical solution might be amphibious batteries, initially floating off-shore.

M12s, self-propelled 155mm guns, in Camp Pendleton maneuvers. Amphibious artillery must eventually be made truly amphibious if it is to provide support throughout the beach assault.

Experimential firings from DUKWs and landing craft have been neither unqualified successes nor total failures. Intensification of effort along this line of approach might solve the artillery problem. If special landing craft or ships are required we must design them. If special computing mechanisms are necessary to calculate and compensate for movement of a floating artillery firing base, if special firing mechanisms are necessary to automatically fire pieces on the craft's passing through the horizontal to eliminate swell and wave effects—they must be designed. Wire communications would not be usable and supplementary radio communications would be necessary. Perhaps specially designed artillery battery firing craft somewhat similar to the LSM could be designed to incorporate all essential features, with firing pieces remaining afloat in such craft the first few hours or minutes as required until sufficient area had been seized to permit beaching and landing of self-propelled pieces. Thus a floating gun platform would be used to provide early support with the same artillery pieces subsequently being landed and employed ashore.

It may be that a better solution lies in the development of an amphibious artillery piece resembling the LVT(A), which could fire floating off-shore or, at the very least, could be landed with assault waves and provide artillery support by employment of crossfires. Such an armored, self-propelled piece certainly could be landed earlier and go into position more rapidly than present conventional towed equipment; it would be better protected and require less depth and less complete mop-up of battery areas.

A third possible solution might be the development of rockets or mortars as primary amphibious artillery types. Such weapons basically require less depth than conventional artillery. Developed on special armored self-propelled mounts, either amphibious themselves or initially firing from special type craft, they might conceivably be the answer to the unsolved problem of artillery support of the beach assault.

OBSERVATION AND CONTROL of artillery fires, when we have developed a truly amphibious artillery arm, will be similar to the present difficult problem of observation and control of direct gunfire and air support during the beach assault, already discussed in detail. And the use of armored communication-observation vehicles by artillery forward observers appears to be just as essential to effectively control artillery fires under the already described peculiarly difficult conditions of observation during the beach assault.

The important point is that *everything must be tried, and the solution somehow found, so that artillery, like all arms in amphibious warfare, can participate in and support the beach assault.* If conventional artillery cannot in this sense be made amphibious, then we must *develop a new type of artillery!*

With continuous heavy weapon support infantry would have little need for, and probably should eliminate or reduce its heavy mortars, 37mm and like guns, and perhaps even its heavy machine guns. Additional sub-machine guns, flamethrowers, and recoilless weapons probably

should be *substituted to increase true infantry assault power.* It is possible that the numerical strength of assault infantry could be considerably reduced, for infantry would not carry the burden of the assault alone. With combined arms power, the attack inland would proceed much, much more rapidly than in the past, and infantry's severe beach assault casualties of the last war should be materially reduced.

The question of providing infantry with armored carriers should be *carefully studied as a means of protection against the VT fuze.* Such carriers should probably be of the smaller improved LVT type with all-around splinter-proof armor. While it is hardly conceivable that assault infantry can fight solely from carriers, *it can, and may have to, fight in and out of such carriers.* Forward assault waves would probably have to fight largely dismounted, but followed by carriers as a base of supply, communications, shelter for wounded, and so on. However, all but the forward fringe of assault infantry could conceivably fight mounted until forced to dismount temporarily for hand-to-hand combat. Unsupported infantry assaults, such as those of the past, could admittedly make much less assault use of such carriers, as hostile resistance must be largely broken to permit their fullest use. But such infantry *tactics should become entirely feasible when following strong assault tank waves and when directly supported by artillery, air, and gunfire.*

If it should not be practical to equip all assault infantry with carriers, then we should carefully study the very real advantages to be gained by *equipping infantry commanders with armored command vehicles.* From an infantry point of view, a most serious weakness of the present beach assault is *decentralization of control,* now necessitated by the inability of infantry commanders to observe and direct the assault action of their units. This difficulty is, like that of direct gunfire and air support control, one primarily of *initial lack of usable observation and limitations of communications.* During the initial phases of the assault, and until sufficient depth is seized to include usable ground observation posts, infantry commanders must follow their assault troops ashore (company commanders 15 minutes later, battalion commanders about 30 minutes, and regimental commanders about an hour), observing as best as they can from offshore landing vehicles or landing craft. They have the same limitations of observation while waterborne as described in connection with waterborne tactical air control parties and naval gunfire control parties—namely that they can *rarely see the assault action once it has crossed the beach proper.* The only way *they can see the assault is similarly to accompany it up and over the foreshore.* To do this, yet not become involved in the assault, and still maintain necessary communications, they must have an armored command vehicle. Assault infantry action can be efficiently and relatively safely observed from a tank modified to become an infantry command vehicle. The tank is suitable, for tank unit commanders have long enjoyed observation of assault action (and reliable communications) from command tanks similarly positioned, and infantry unit commanders can in this way gain observation and control of the infantry beach assault, otherwise initially precluded. Such modified tanks could be equipped with remote control radio equipment so that vehicular communications could be used dismounted when necessary. They could be landed in the assault generally with tanks as already described and would be inconspicuous. Infantry command elements would be protected against proximity fuzed shell fire. Adoption of such command vehicles would *constitute a long step toward elimination of present initial decentralization of control during the beach assault,* during which infantry fights largely as squads and platoons. It would make practical the coordination and direction of assault action at company, battalion and regimental levels. We could thus *very considerably strengthen infantry's assault power* and increase infantry's contribution to the beach assault by eliminating probably the greatest single weakness of assault infantry—*decentralization.*

Only fraction of one per cent of our tanks were lost through destruction of tank landing craft.

IN SUMMARY, we have analyzed our present amphibious doctrine and found that the weakest link in amphibious warfare is the beach assault. Aside from the ship-to-shore waterborne support of armored amphibians, the

An amphibious artillery piece resembling the LVT(A), which could fire floating offshore or at least could be landed with assault waves and provide artillery support for infantry, is needed.

important decision of the beaches is left to unsupported assault infantry. Tanks do not land initially; direct gunfire and air support must wait until control agencies become operative ashore, usually one to two hours later; and the first artillery support is normally initiated several hours later. The *entire landing force mission hangs in the balance* while the landing force is capable of developing only a fraction, a very small fraction, of its total power to decide the overall issue of success or bloody disaster.

FOR THERE IS no turning back from a beach assault. It is one assault that must succeed initially. Reserves ordinarily will not be strong enough to make a successful second try. Suppose the assault infantry battalions in any of the major Pacific landings had been annihilated. Does anyone believe that regimental, division, or corps reserves would have been stronger than the initial assault and have succeeded again after an initial failure? Ordinarily, if initial assault elements are lost, the entire amphibious force must withdraw, another new and stronger force must be trained, and a new operation planned! The effect on morale, friendly and hostile, incident to such a failure would be most serious. Can we continue to risk our assault battalions ashore for at least an hour almost entirely unsupported? *Failure of the beach assault means annihilation of assault units, failure of the entire amphibious operation, and disruption of strategic plans.*

Moreover, were it not to be expected that any future enemy will unveil innovations specifically designed to defeat our past form of amphibious attack, it would still be desirable to eliminate weakness anywhere in our overall amphibious doctrine. The beach assault must be made a combined arms assault and be made just as powerful as we can make it—in order that we be prepared for the worst that an enemy can devise to oppose us.

IN CONCLUSION, the simple truth that the strength of the *whole is greater than any of its parts dictates replacement of the infantry beach assault by the combined arms beach assault.* This is indisputable, and the only valid question is practicability of realization. But when we reflect on the drastic changes accomplished between World War I and II by the early pioneers of modern amphibious warfare, the practical difficulties of achieving a truly combined arms beach assault *become relatively insignificant in comparison.*

Second best is never good enough and anything short of total power is always too little in warfare. It is particularly not good enough, and too little, *to gamble on the success or failure of the beach assault, the most critical and decisive of the several phases of an amphibious operation!* We must perfect amphibious warfare so that we may undertake any and all amphibious missions assigned us, *depending on our own strength to guarantee success, rather than gambling on the enemy's weakness.* We have time, which we didn't have during the recent war, to perfect the combined arms amphibious assault. *We must utilize that time to eliminate the last remaining weak link in the amphibious attack by strengthening the beach assault.* US MC

Beachheads of World War III

By Fletcher Pratt

THERE ARE FEW FIELDS OF HUMAN ACTIVITY IN which the logical argument from past experience is more apt to be at fault than in military science—if it is a science. It is true that all great captains have enlarged upon their own experience and that of others, but the quality of greatness would seem to reside rather in the ability to detect essential differences between past and present situations than in reliance upon the all too readily perceived resemblances. It was logical, for instance, that the Japanese should believe that because the coconut log bunker was a success on New Georgia it would be valid anywhere in the Pacific; but it turned out not to be true. In the most famous case of modern times, the French general staff argued that because the unsystematic trench lines of 1916 had withstood attack very well and the semi-systematic defenses of Verdun still better, a fully systematic frontier line would be virtually impregnable.

Gen Gamelin's logic was all right, but the facts that supported it were facts no longer; they had been turned into historical incidents by new weapons and techniques. It is important to bear this experience in mind when we look toward World War III, for nothing is much clearer than that the history of World War II will be a very uncertain guide. A tremendous new fact has been added to the combination—the fact of the atomic bomb.

On the basis of analogy with the case of gas warfare it is frequently urged that the bomb will not be used—because of international agreements or something of the sort. This is surely absurd and the analogy is surely false. The real reason gas was not used in the late conflict was not signatures on any scrap of paper, but because high explosives had become so efficient that a gas attack was a waste of time. As for agreements—well, one may ask whether the U. S. would deliver an unconditional surrender to an enemy rather than use the bomb; or whether the enemy would surrender in the reverse case. Modern

". . .For World War III we must contemplate military operations of every type, surrounding, leading up to, and supplementing those involving the bomb. We must avoid bringing together such a large group of men as to attract such a bomb. . ."

warfare has become so all-embracing, is conducted from so deep an ideological basis, that every struggle is a struggle for survival in which no weapon can be neglected.

It is equally important to note that the atom bomb is not the only fact that needs consideration. There has been a good deal of talk about 48-hour wars as a result of what the bomb will do to cities and other major installations. Most of it is pretty loose talk. The bomb is a fearsome engine of destruction, but that date is not visible at which the quantity of them is so little limited that they can be employed against any targets but those of major importance. Nor can we count upon a surrender being produced by atom bomb attacks upon the major targets available in the early days of a conflict, before war-weariness and discouragement have set in. The two bombs dropped on Japan were delivered at the precise moment necessary to produce the maximum psychological effect and they did produce a physical effect not likely to be often repeated. For World War III we must contemplate military operations of every type, surrounding, leading up to and supplementing those involving the bomb. Even if this were not true, such a force as the Marine Corps, whose stock in trade is its conduct of amphibious operations, must behave as though it were true. If, by some wild chance, a series of agreements should be reached that would render manufacture and use of the bomb impossible, the case would be even clearer.

WHAT THIS SUMS UP to is that we can arrive at a valid examination with regard to amphibious warfare only by looking at the bomb from the tactical rather than the strategic or political point of view, and looking at it with intelligence instead of open-mouthed adjectives. The moment one begins such a process one thing becomes clear. The bomb is a vastly destructive form of high explosive. It is also the most recent and not necessarily the final step in a process which began with the Battle of Halidon Hill in 1333, when the arrow-sleet of English archery tore all to pieces the dense mass of Scottish pikemen who were advancing shoulder to shoulder.

Since the date of that battle the history of infantry tactics has been that of the progressive development of missile weapons producing a progressive opening out of battlefield formations—a movement away from the phalanx and toward the fire-team. At Wagram in 1809 it was still possible for Napoleon to break an enemy center by the charge of a dense column of foot, though the way had to be prepared by clouds of skirmishers and a crushing weight of artillery. But when one of the boldest spirits of the American Civil War was asked whether he had ever seen a close-order attack, the answer was a stare and "No; God don't make men who could stand that." Even in that war a battalion front in action was seldom wider than 200 yards; but a battalion of World War II which deployed on a 200 yard front would not have remained in action very long.

MANHATTAN PROJECT merely intensifies this growing necessity for dispersion, makes it absolute instead of qualified, permanent instead of local. While there is any prospect of attracting an A-bomb we must avoid bringing together so large a group of men that they would be a target for one—not only on the battlefield, but even in the rear areas. Such a concentration as that of the 1st Marine Division at Pavuvu in the Russells before the move up to Peleliu would be impermissible. It was in a rear area, yes, but not far enough back to be beyond the range of the planes and guided missiles they will be using in World War III.

Essentially, however, this remark is a case of once more considering the matter in a strategic rather than a tactical aspect. In fact, the big bomb itself does not appear to have very much tactical aspect ashore, even against a beachhead. It represents the destructive power of high explosive pushed to the nth degree, but its existence has been allowed to mask the fact that other forms of high explosive would have demanded extreme dispersion at the tactical level even if the bomb had never been invented.

There has been complaint from infantrymen about the declining number of rifles in their companies, but the plain fact is that such weapons as rockets, mortars, recoilless artillery and the greater mobility of conventional artillery, have made available so much close-in firepower on the battlefield that the rifle has become a special purpose weapon.

Such weapons reproduce at the tactical level and for small units what the atom bomb and guided missiles achieve in the strategic field and for large concentrations. A modern weapons company can deliver a far greater weight of fire than a battalion of World War I artillery, and the range of the latter is somewhat more than compensated for by the fact that so many of the modern weapons are true accompanying guns, capable of being carried right up to the outpost line. It is also important

to note that most of these weapons are really new; they were only experimented with, not fully exploited, in the last war, as the tank was only experimented with in 1917-18. Their total effect is to make dispersion and concealment of the first importance; to depopulate the battlefield, leaving the individual soldier far more alone than at any time in history.

This tendency was already begun in World War II when on Okinawa, for instance, a single individual in motion was always considered a valid target for a mortar and frequently for a 75. A four man fire-team is probably one of the largest units that can be permitted within close supporting distance of each other.

NOW PLACING all this firepower in the hands of the infantrymen and at the same time forcing them to scatter and hide has several very interesting effects. Perhaps the most important for the purpose of this study is the weight thus placed upon the training, intelligence and combativeness of the individual soldier. Let us consider the last item first.

The careful researches of Col S. L. A. Marshall have shown that "in the most aggressive infantry companies under the most intense local pressure the figure" of those engaging with any and all weapons "rarely goes above 25 per cent." He continues; "the thing is simply this, that out of an average 100 men along the line of fire during the period of an encounter only 15 men on the average would take any part with weapons." Col Marshall's analysis of the reasons for this is fairly elaborate, but he is inclined to believe that the basic cause is educational. These are citizen-soldiers, whose long and careful training in the idea that war is a pretty evil thing had by no means been eradicated by their comparatively brief period of training to the idea that war is sometimes a necessary thing in which you kill somebody else or get killed yourself. The men knew how to handle their weapons; they just couldn't bring themselves to do it against other human beings.

The underlying slant toward pacifism which made so many of our soldiers into armed members of a cheering section was a part of the educational delusion of the 1920s and '30s that you can avoid war by not thinking about it. It may not appear with the same intensity again, though there are as yet few signs that the educators have changed their minds. But the main point for us is that under World War III conditions, with each individual representing so large an amount of firepower and so great a proportion of front coverage, 15 per cent of them in action will be nowhere near enough. The men who go into the battles of World War III will have to approach the professional soldier's attitude a great deal more nearly, just as the conditions of the Civil War made necessary a far higher level of professionalism than did those of the Revolution—when the embattled farmers could take their muskets down from the wall and win such a victory as Bennington.

Nor is this the only line along which the need for longer and more thoroughly professional training for the soldiers of World War III becomes apparent. The infantry weapons have multiplied in number as greatly as they have increased in power; it is no longer sufficient to train a man to use a rifle and then send him into action. He needs to know all about mortars, machine guns, bazookas, grenades; should understand antitank and AA guns, placing and defanging mines; should be on at least speaking terms with recoilless artillery and will probably have to learn rockets before the next war gets here. There is really no arm that can be spoken of as "the" infantry weapon today. The infantry battle has become an intricate complex in which no weapon will perform exactly the task of some other. Rockets will hardly stop an infantry attack; mortars are useless against concreted block houses.

The multiplicity of weapons not only demands a higher degree of training on the part of the soldier; it also asks a much higher capacity to absorb that training, a better level of both combativeness and general intelligence. The loneliness of the future battlefield contributes to the same end. Communications equipment has improved along with everything else, but the burdens on it have become so great, the need for dispersion is so far advanced, that we must contemplate the loss of tactical control in all but the smallest units once battle has been joined. That is, the battles of World War III will be fought by men who must be left pretty much to their own initiative.

Of course, in asking for a more intelligent and better trained soldier we encounter one of the prime difficulties in adequately preparing national defense. In the hearings on UMT opponents of the measure claimed that if the services lowered their standards for enlistment even to the figure obtaining during the war, they would have no difficulty in filling their ranks. It is probably true; very much the same thing was remarked from the other side by a writer in the *Infantry Journal* (March, 1948), who in surveying the reasons for the shortage of enlistments in the ground forces, placed the height of GCT figures demanded of recruits as foremost among all causes for the manpower shortage. He remarked: "Old-time non-commissioned officers, who were proven in combat, know that if the clock were turned back many of them could not have come into the army under present standards." The suggested remedy was to lower the standards and take in men whom it might require two years to train but who would then be willing to stay in the service for 25 years or more.

But is this not once more the too-logical deduction from past experience? Will this man whom it takes two years to train in war as it was in 1941 be any use on a World War III battlefield, where he will have very few orders

and where every problem that confronts him will be novel? I think the evidence is that he will not; that for the new war two years is an inadequate period in which to train the type of man in whom conditioned reflexes must do the work of imagination and judgment; that such men will be eliminated very quickly and without any benefit to their cause once the shooting starts. One trouble with much American military thinking is that it has unconsciously fallen into the habit of accepting as a law of nature that numerical superiority which has been on our side in every war of our past history. It may be with us in World War III, but even if it is, the demands made on the individual ground soldier by the new war are such that numerical superiority is not likely to count for much more than the ability to perform close-order drill.

WHAT HAS all this to do with the specific matter of amphibious operations? A great deal; for in such operations all the effects of the atomic age will be found in intensified form. The new weapons call for dispersion and concealment, probably for rapid movement; in beachhead operations concealment is always very difficult and dispersion will be impossible unless the movement is very rapid indeed. In ordinary ground operations communications can be expected to be poor and tactical control from the regimental to the company levels even poorer. In amphibious work both will be far worse. The demand of continental warfare is for a more intelligent soldier who has been better trained to skills with a wide variety of weapons. How much more heavily will this demand fall upon those engaged in beachhead work! It will be hard enough to maintain reserves anywhere; they tend to bunch up in areas which were relatively safe from the older type of weapons, but which afford no security at all against the new. At least in the early stages of amphibious operations reserves will be wellnigh impossible; they must be furnished by succeeding waves of assault.

Along the same line it is clear that in all cases one of the most difficult problems posed by the new war is that of logistics. How are major supply and ammunition dumps to be maintained when any large concentration is an indicated target for atomic bomb or guided missile attack? How much defense can be afforded for them without running into a law of diminishing return under which the defenders eat up the dump? Or if minor and well scattered sources of supply are used, will not the law of diminishing return set in against the transport that must carry the goods to the fighting front?

These questions are bad enough for normal land operations; in amphibious warfare they may become so acute as probably to provide a factor limiting the extent of movements. Supplying an overseas operation involves the use of two separate means of transport at least with a transshipment in between them, and if big supply dumps are obvious targets for the very powerful new missiles,

Troop transport tactics, such as used in the past war, would be over-vulnerable to an atomic bomb.

the almost unavoidable small dumps at transshipment points are indicated targets for the next lesser category of weapons.

The idea of air supply is very attractive, since its flexibility, range and speed allows aerial supply of organizations to avoid most forms of attack on communications, but here also a law of diminishing return comes into operation. There is certainly a limit practical load. Planes can be produced which will carry items as bulky as a medium tank or a 155, but what about the air strips at the receiving end? In fact, can a commander count on having for very long any air strip at the receiving end that will take so heavy a plane in view of the means of attack that can be brought against the strip? There is probably a limit practical distance for air supply as well —that to which logistic support can be flown without using up so much fuel that there would be no room left for supplies.

Of course, the distance problem can be solved in part by the use of carrier planes operating from ships running close into the beachhead, but here again the items to be brought in are probably limited to those light in weight and small in bulk for all but the most exceptional cases. Supply by submarine sounds somewhat better, provided one has the submarines. The Japanese demonstrated how useful such vessels were by keeping their blockaded islands going, and for logistic purposes there is no real difference between a blockaded island and a beachhead. Perhaps the conclusion on this matter of supply is that the whole problem is so hard a nut to crack that no one means is likely to be fully efficacious, and we must contemplate using them all.

Parenthetically, as a consequence both of the need for rapid transshipment and that for concealment, a much wider use of such a specialized formation as the Seabees is indicated. There are other reasons also for extending the Seabees. In the last conflict this institution was the one major American contribution to the art of war, as distinguished from its technique, and our ability to raise and maintain such a force is one of the very few respects in which we widely surpass every possible opponent. One of the most certain ways to win a conflict is to carry the struggle into a field where unchallengeable superiorities can be developed.

Before we leave the tactical level it is worth looking over the combined problem of command and intelligence —military intelligence, not the basic mental equipment of the man in line. It has already been pointed out how difficult the control of subsidiary commands will be, especially from regiment. (It may well turn out to be so difficult that the regiment will cease to have any function with regard to amphibious operations except as an administrative organization.) On the Pacific Islands the Japanese, subjected to the type of firepower which can be foreseen as practically universal in World War III, lost their communications again and again. The whole struggle was a constantly repeated story of failures to bring off movements that had been planned and ordered because of communication breakdown. The effect was most prominent at Tarawa, where a counterattack the Japanese commander had every intention of making on that desperate first night never took place, because he could not reach his troops. On Saipan the men who were to support the counterattack of the tanks never got the word, and one could find half a dozen other instances.

Now it would be refreshing if means of communication were devised that would work under such circumstances, but it would also be unexpected. There is a general tendency in war, quite as marked as that toward dispersion, and indeed a part of it, running toward giving units down to the individual man a general directive and allowing them to work out their own destinies. Perhaps it would be more accurate to call this a compulsion rather than a tendency; the tendency of any human being in command is to issue orders constantly and to the very limit of his authority. The conditions of modern war, of which the communication difficulty is only one, impose freedom of action as a necessity.

But there is an inescapable concomitant of the method of giving subordinates a general plan and their heads, and that is they must have information—a great deal more of it and more accurate than most of that our people had during the amphibian operations of the last war. In the Normandy invasion the intelligence seems to have been accurate and complete, but that was because we had the British to lean on, who are old hands at the racket. In the Pacific the information with which the troops went in was really adequate only at Bougainville and Tinian and in the latter case the Japanese plans and orders had been captured on Saipan.

If it be objected that good intelligence about an enemy is hard to get, the answer is that war is a hard game any way you look at it, seldom made easier by substituting a blind rush for an approach made with full knowledge. The complaint here is not really the inadequacy of our intelligence set-up. It could probably do with some revising, but what needs revising still more is the attitude taken toward intelligence by most American military officers. They tend to regard it as a private possession and sit on it instead of distributing it to the ranks beneath.

THE MORE CLOSELY one considers the probable over-all character of amphibious operations in World War III, the higher looms the importance of providing all subordinates with all the information that can be gathered. We have to play it smart now. The day when an amphibious attack could be made a success through the long continued application of sheer power as at Normandy, Kwajalein or Okinawa, is probably gone for keeps. "The fleet that came to stay" off the last island would be a made-to-order target for atom bombs, and if not for them, then flights of guided missiles. The whole business of the Kamikaze attacks may be seen as a kind of preview of the guided missile war that is coming. The U. S. Navy was able to take its losses off Okinawa only because the enemy's forces afloat had been practically wiped out and there was no defensive task for which our fleet was required to conserve its resources. At the beginning of a conflict against the major enemy whose strength was still largely unimpaired, it is doubtful whether such losses could be accepted, or the prospect of them.

It has been pointed out by various people that the specific advantage of naval power in the new war is that by its very nature it possesses the ability to achieve both concealment and dispersion through mobility. A strike flown against an enemy from a carrier deck stands far less chances of retaliation than one flown from a field, however well the field may be hidden or protected. The same goes for guided missiles, whether launched from submarines or surface ships. Some fairly important consequences for amphibious war follow from this — or rather, from the fact that dispersion, concealment, mobility, would seem to be almost as important at sea as on land. Not only is the old power play no longer possible, but the whole character of amphibious operations is radically changed. They appear as partaking the character of Carlson's Makin raid rather than that of the invasion of Okinawa.

By this I do not mean that the new form of war has reduced amphibious operations to the status of diversionary raids. If we fight a continental power we shall

certainly have to gain a foothold on the continent somehow, and however elaborately you slice it, this is still an amphibious operation. For that matter, an amphibious operation is indicated whenever an enemy has a coastline. Those at Anzio and Salerno failed to achieve the desired strategic results, but that failure had nothing to do with the fact that the attacks came from the water, or with the general soundness of the plan of unlocking an impacted position by working in behind it. The difference between World War II and World War III is in the approach, in the method of conducting an amphibious movement and in the process of following it up.

It is also worth remarking that in all the Pacific amphibious operations except Guadalcanal and Okinawa, the very first and the very last, the attack was conducted under circumstances that will probably not occur again. The defenders were isolated, cut off. With our forces enjoying the fullest command of the sea it was possible to take big convoys boldly across oceanic distances and to discharge them into the beachhead without fear of attacks on the transports. In view of the still unsolved problem of the new submarines, we are by no means certain of again having a command of the sea that will permit free transport movements. In view of the new weapons, it is doubtful whether transports will be able to lie offshore even for so long as they did at Guadalcanal.

The indicated solution is in the direction of transports that either by speed or deception will be able to set the attacking forces on the beach before the defense can bring its resources to bear, and then support them to a certain extent by the fire of the transporting vessels themselves—that is, destroyer transports or submarine transports. The Japanese used both with results thoroughly satisfactory in terms of the quantity of force employed, and so did our own under-water demolition teams. The point that such ships cannot carry very many men is certainly one for serious consideration; it is difficult to conceive of landing a marine division from submarines, for example. The first wave would probably require immediate reinforcement by air, or conversely a first wave coming by air could receive its heavy equipment and reinforcements by ship.

Of course the power of modern weapons cuts both ways. With the tremendous support that modern ships and planes can give to a landing, the distance to which they can disorganize defensive installations behind a prospective beachhead, it will probably take far fewer troops than the six divisions of Normandy (or eight, counting the parachutists) or even the three of Saipan to establish a viable position ashore.

In the meantime the permutations on the theme of aerial and naval landings are endless; the point to watch is that it will hardly be possible to use the World War II type of transport until an amphibious expedition has worked fairly deeply in. But that poses a really serious problem, which reaches all the way back to the factories. The invasion of Hitler's Europe had to be delayed for a long time until the landing craft were ready and even then could not take place according to the original plan. Will we have enough of the special ship types needed for major amphibious operations? Probably not—at least in the early part of the game. Well, what then? Well, we shall have to do what one always does to a certain extent in war, put up with makeshifts that are both inefficient and wasteful.

One point on which no makeshift can be permitted however, underlies all this discussion of the beachheads of World War III. This is the vital necessity of extending the beachhead laterally from the moment the first man gets ashore. It represents a 180 degree change from the conventional necessity for developing a beachhead in depth. The reasons for the latter are as compelling as they ever were. A long but shallow beachhead risks being broken through to the water and rolled up. It risks being taken under fire throughout its whole area by light and accurate weapons. But all such considerations must yield before the other and overmastering consideration of what an atomic bomb could do to a laterally narrow beachhead, not so much in the way of direct destructive action as in rendering the area radio-active. One might imagine what would have happened at Salerno or Anzio or Leyte or Lingayen if our enemies had dropped a single bomb in shallow water offshore after the troops were on the ground and the lines of attack and defense were drawn.

The Normandy beachhead was probably too big for a single A-bomb or even three or four. The southern France beachhead early became far too dispersed to have been any more than discommoded. Which brings up another point: as soon as an amphibious assault begins, as soon as a beachhead develops, it automatically becomes one of those targets of major importance for which atom bombs must be reserved until they become as common as pistol bullets—fortunately, a date that is never likely to arrive. But with two or more beachheads the importance of each diminishes in proportion to the total number. It might not be, probably would not be, worth while trying to lay bombs on a set of six. (One must remember that the conditions made it easy to deliver the two Japanese bombs to the correct address. A good air defense will cause a certain proportion of bombs to be wasted.)

Now one of the oldest of military principles is that of concentration of effort—of putting all the eggs in one basket and watching the basket, as Lord Fisher once said. But is it not worth inquiring whether current facts, the facts given to us by the conditions of today, not by history, do not say that the time has come to abandon their principle on the strategic level as well as the tactical, and to examine the possibilities of a strategy of dispersed attack for World War III? USMC

Lisbon Interlude

By The Marine Officer

Illustrated by W. H. Mohler

THE TIME WAS FALL, 1941; THE PLACE, LONDON. THE Marine Officer had completed his first-hand study of the art of war as practiced by our British cousins and had been ordered home. It was pleasant to think about—no more blitz and no more short rations. And the travel orders left nothing to be desired—British Overseas Airways to Lisbon and Pan American Clipper to New York. A little of that Portuguese sunshine wouldn't be hard to take.

But watch your step in Lisbon, he was warned. The Gestapo was everywhere and they didn't like Americans. E. Phillips Oppenheim stuff, scoffed the Marine Officer. Some of these people had been thinking about war too much. He felt more realistic about it when Higher Authority made it plain that the trip home was not to be just a pleasure jaunt. Marines might one day land in the Azores, he was told, and it would be nice to know as much as possible about the situation. Since the Marine Officer could "falar portugues" a little and the Clipper's route included those islands, the mission was obvious. The approach and take-off at Horta would be ideal for aerial reconnaissance of harbor defenses. He was given a sketch of the vital area, but enjoined against taking it into Portuguese territory. It could be embarrassing if it were found in his possession.

With a Navy File for travelling companion, the Marine Officer shoved off from London on the afternoon train for Bristol, whence the Lisbon-bound plane was due to leave early the next morning. They had just settled themselves for "tea" in the "restaurant car" with an RAF officer and his wife opposite when the train slowed for Bath. But at that moment the banshee wail of air raid sirens cut the air and the engineer decided to forego his scheduled stop, for railway stations were among Jerry's favorite targets. The train gathered speed and fled through the yards for open country. As a "clunk" landed nearby and all hands shied away from windows, the RAF officer grasped his better half by the nape of the neck and

The correspondent, tired of the game, suggested that "Slap Happy" Herman should go home to bed.

tucked her firmly but not too gently beneath the table. "You know, I've always wanted to put my wife under the table and this seemed a good time to do it," he explained with a diffident smile.

The mufti-clad American officers were met at the Bristol station by a uniformed representative of the British Overseas Airways Corporation. He took them to the hotel, saw to it that there was no trouble about rooms, and warned them that they must be up and ready to go at 0600 the next morning. Good service, thought the Marine Officer, but poor security, if that mattered. Nobody in the hotel lobby could miss the fact that a BOAC plane was taking off in the morning and these were two of the passengers—and BOAC planes went only to Lisbon in those days.

The travelers had their last dinner on British soil in the hotel dining room. Their waiter was obviously a Latin type and was quite attentive—something a bit unusual considering the manpower shortage. At the end of the meal, he informed them that coffee was being served in the grill and convoyed them to that spot. All tables being at least partially occupied, the Latin led his patrons to one at which were seated two others of seemingly Mediterranean extraction. As he pulled out chairs, the waiter remarked softly in Portuguese, but not too softly to reach the ears of the Marine Officer, "These are Americans. They go tomorrow to Lisbon."

Blissfully unaware of the situation, the Navy File relaxed over a cup of steaming coffee and gave forth a remark indicating his intention to launch a contemplative discussion of matters military and naval. The Marine Officer gave his companion a kick beneath the table and turned the conversation to less professional topics, all with his best poker face and with his best ear turned to the forthcoming discussion in Portuguese as to what they were and why. Apparently there was more than casual interest in anyone whose business took him to Lisbon, the crossroads of wartime Europe. And a British counterintelligence officer was more than casually interested when he was told of the incident. The Marine Officer still would like to know what happened next, but doubtless he never shall. Anyway, he drew an important moral—never take it for granted, if you want to preserve security, that foreigners can't understand your language.

The transition from the bleak, penetrating grayness of English autumn to the balmy, sub-tropical warmth of Portugal was swift and uneventful—except for the Nazi patrol plane. Shortly after the steward had pointed out the last resting place of the mighty *Bismarck*, the Jerry came in fast on the port beam. Something about a sitting duck ran through the mind of the Marine Officer as he made a rapid estimate of the situation, but the German merely took a good look, rocked his wings in salute to the unarmed passenger plane and went off in search of better game. It was not until several months later that the Nazis, suspecting that Winston Churchill was aboard, sent one of these planes and all of its occupants to a watery grave.

Lisbon's swank seaside suburb, Estoril was the gathering place for the Britons and Americans—not to mention a few others—whose travels took them to and from the Continent. After gorging themselves on the fruit, milk, butter, and other delicacies for which their mouths had watered so long in England, the Navy File and the Marine Officer basked that first night in the golden glow of street lights and illuminated windows whose radiance was dazzling to those who had stumbled through the impenetrable

The Portuguese capital was truly a cosmopolitan place. Nazi agents could be found within earshot of any group of Englishmen or Americans. The Japanese were there too. Gestapo agents searched the author's room but he was was ready for them

shroud of the blackout.

A truly cosmopolitan place it was. In the hotels and in the Casino one rubbed elbows with Nazis, Fascists, and Falangists who gloried in a blatant display of their party affiliations and loudly proclaimed the blessings of the new order they were bringing to the world. Then there were the refugees from Hitler's wrath, patiently awaiting their turn to sail for the shores of the New World, and there were countless nondescript individuals whose nationality and avocation were doubtful—in many cases perhaps even to themselves. The ubiquitous Jap, too, was there. "Are Japanese frequent spectacle in London?" he blandly inquired. Upon being assured that Japanese were indeed a spectacle there as everywhere, he modestly retired with a bow and a hissing "Ah, so."

Not so blatant, but conspicuous in those methods so characteristic of their nationality, were the Gestapo. Earlier arrivals lost no time in acquainting the Navy File and Marine Officer with the set-up. Domiciled at the same hotel and obviously in command was the "Skipper," an imperious Junker who had been a submarine captain in World War I. Next in line was the "Exec"—just plain nasty was the only way to describe his looks. "Slap-Happy Herman" was all that his name implied and the "Gorilla" was a gargantuan individual whose face bore the marks of more than one barroom brawl. There were others, too, in this motley crew; you couldn't miss them.

ONE OF THE MISSIONS of the Gestapo detachment was to keep surveillance over the British and American transients. This was easy, for the latter were naturally gregarious and had little to do except kill time while waiting for transportation. And it was soon apparent that one of the best ways to kill time was to watch the antics of Hitler's Merry Men. Smug in the confidence that came from being members of a "master race," all that they did was done with such method and thoroughness that their maneuvers stood out like a sore thumb. Never recognizing each other in public, they exchanged on passing such supposedly sly but abrupt jerks and nods that an observer might think a sudden attack of palsy had struck.

A Nazi agent was always within earshot of any group of Englishmen and Americans in lobby or bar. His ears would perk up when the game began. A casual reference to the fact that the battleship *Maine* was "down" in Havana harbor would be followed by the startling statement that that new ray gun seemed to be just what was needed. Every hour on the hour the watch would change. If "Slap-Happy Herman" had been getting an earful, the "Gorilla" would approach from the opposite flank conspicuously avoid looking at his colleague who just as conspicuously avoided looking at him, and seat himself behind a copy of the London *Times*, while "Herman" made a dash for the Skipper's room to get his latest information on the way to the Wilhelmstrasse. But they really were human. One night, a correspondent who had left Rome by request after making some uncomplimentary allusion to Il Duce, weary of playing the game, turned to "Slap-Happy Herman" seated in his usual place on the outskirts of the group, and said, "Why don't you go home and go to bed, you ugly son of a b——?" With the look of a hurt child, the "superman" obeyed.

BUT THE SITUATION had its insidious side too. The Marine Officer was warned that the Gestapo routine included a clandestine entry to his room in cahoots with the hotel employees and a search of his gear just to see if he had any Top Secret papers. Against this there was no defense unless you stayed home all day. So, to see what would happen, he arranged his spare clothing with certain design and left his bags unlocked, for he had also been told that a locked bag presented no obstacle that a few knife slashes could not overcome. It was not long afterward that he returned to his room to find all gear present, but in slight disarray.

The fact that the Nazis' interest might be more than transitory was evidenced by the candid camera shots, taken casually but including any Anglo-Saxon who was caught unaware. Maybe E. Phillips Oppenheim had something after all.

One day the "supermen" lost their accustomed stolidity. There was much hustling about and little or no heed paid to their usual "victims." The reason became apparent that afternoon when another crew of plug-uglies moved into the hotel and seemed to pair off with the Huns in a "cold war." Then the late Comrade Constantine Oumansky, Soviet Ambassador to the United States, appeared for a one-night stand en route to Moscow. Despite much wishful thinking on the part of all observers, the "heavy men" of the NKVD departed without a clash with their Nordic rivals.

As the days rolled by and a seat on the Clipper was still just a promise, the Marine Officer was not unmindful of his mission. An announcement in *O Diario de Lisboa* that reinforcements were sailing the next day for the Azores drew him bright and early to the waterfront. There he watched a force of estimated battalion strength load aboard a transport. Collar ornaments made unit identification easy. Fearful lest the passage of time make him forget the critical areas of the coastline and harbor he was to reconnoiter, he drew a sketch from memory each day. And just to out-Gestapo the Gestapo, he drew it on a highly utilitarian and universally available type of tissue paper, and then disposed of it in a manner which left nothing of interest to prying eyes.

A midnight call from the Pan American office requesting him to report at the Cabo Ruido landing for an 0400 departure brought the Marine Officer's Lisbon tour to

an abrupt, but not unwelcome end. About noon the big flying boat made landfall in the Azores and swooped low to maneuver its landing in Horta's tight harbor; the Marine Officer was all eyes as the panorama unrolled below. He saw what might be a coastal battery—if so, it was new for there had been no such installation on the chart he had studied so laboriously.

The Clipper made a rough landing and its skipper shook his head over the prospects of taking off again after the scheduled two-hour stop. The swells were bad and should get worse before they got better. That suited the Marine Officer fine; he would have at least 24 hours for a ground reconnaissance. After lunch he hired one of the island's rickety taxicabs and shoved off for a "sight-seeing" tour.

THE CAB DRIVER was garrulous as only a Latin can be and delighted to find an American who spoke his language. After doing the town thoroughly in a matter of minutes, a drive along the shore toward that suspected battery was suggested. All went well until the target area was almost within sight. The driver stopped and commenced to come about, saying he could go no farther. "E proibido—it is forbidden," he replied to a request for the reason why. Pressed for more, he explained that some "guns big as this"—pointing to the circumference of his steering wheel—were up there, and there was a soldier who would not let you pass even if you wanted to.

The Marine Officer laughed incredulously and implied that, although he would never doubt the word of his new-found friend, seeing was believing. Anyway, where was that sentry that said "E proibido"? All right, said the islander, he would show the skeptical American. On they went for another hundred yards to find a gray-uniformed Portuguese infantryman basking in the sunshine outside a sentry box. Reluctantly coming to life, he shouted something about "E proibido" and motioned languidly in the direction from which the taxi had come.

"Tell that man I don't believe there are any guns up at all—and certainly none as big as your steering wheel," the Marine Officer directed his driver. A staccato exchange in Portuguese wound up with the soldier swearing by all the saints that there were guns up there, big ones too, and furthermore, wouldn't it be silly for him to stand there all day long and say "E proibido" if there were nothing to watch over? Yes, it would, agreed the Marine Officer, and he was sure he would not think the other was silly if he were sure that guns were there, but he knew very well nobody had any that big.

That was too much for the pride of the Portuguese. Climbing on the running board of the car, he motioned the driver on to a bend in the road which had masked further view. "There," he crowded, his exasperation turning to triumph, "you see." Sure enough, the Marine Officer saw. That was it, all right, but there was a slight discrepancy in the driver's original report. His steering wheel was considerably more than five inches in diameter.

After dinner the Marine Officer strolled through the town, its streets comfortably filled with soldiers on liberty, and picked up identifications galore. The Portuguese Army conveniently worn unit-designating numerals as well as branch insignia. A beer in a soldier-packed bar was the opening wedge to a discussion of the international situation with a grizzled sergeant, veteran of years of colonial service. When the future of the islands was broached, the old soldier set his glass down and announced with finality, "If the Germans come, we will fight like hell. If the British come, we will fire a few rounds in the air and then say 'Welcome friends.' If the Americans come, we will just say 'Welcome friends' ". A murmur of agreement ran through his fellows within hearing.

The water was calm the next day. The Clipper took off for Bermuda en route to LaGuardia Field.

It was on a Saturday that the Marine Officer arrived at Headquarters. "Get yourself squared away," he was instructed, "and come back Monday with a full report on what you have found out." But on Monday nobody was much interested in the Azores. It was 8 December.

US MC

Black Star

The Netherlands Indies: Crossroads of the Orient

THE GREAT ARCHIPELAGO OF THE NETHERLANDS Indies stretches like an emerald girdle across the tropic seas between the Malay Peninsula and Australia. Its thousands of islands cover an area some 3,100 miles long and 1,000 miles wide, with a total land surface of 733,000 square miles—equal to all of the United States east of the Mississippi.

By Ronald Stuart Kain

Borneo, the largest island, is the size of France. Sumatra is as big as California. The other islands range in size down to mere pin-points on the map.

The 75,000,000 inhabitants, predominantly Malay, are divided into 150 different ethnic groups speaking 250 languages and dialects. However, a common Indonesian language has gained wide currency during the past quarter century, particularly among the literate population, which includes less than 10 per cent of the inhabitants.

The Dutch-Indonesian controversy has touched off a diplomatic struggle among all the nations whose interests in Southeast Asia and Western Europe are affected. Future of the Netherlands and Indies rests on the resolution of this struggle

The Indonesian peoples are in various stages of political and cultural development. Java has had a high civilization for over a thousand years. At the other end of the cultural scale are the primitive tribesmen of Borneo and Netherlands New Guinea. Some sixty million Indonesians, concentrated mainly on Java and Sumatra, are Mohammedans, making the Indies the largest Moslem territory in the world outside of Pakistan. There are some two million native Christians, found mainly in Central Sumatra, northern Celebes and the Moluccas.

Four centuries ago the lure of the archipelago's precious spices drew medieval Portugal, Spain, Holland and Britain into a prolonged struggle for control of the Indies' trade. Now these rich and strategically placed islands are again a source of international concern.

The Dutch, who took possession beginning in 1600, face an Indonesian nationalist revolution which brings into question the future of both the Indies and the Netherlands. This in turn has touched off a diplomatic struggle among all of the powers whose interests in southeast Asia and western Europe are affected by the Dutch-Indonesian controversy.

The dispute has given rise to acriminous debates between representatives of the major communist and democratic powers in the United Nations Security Council. India, China, Australia, the Philippines and the Moslem countries are displaying active interest. So are Belgium and France, which are allied with the Netherlands and, like Britain and the United States, have a strong political and economic interest in its stability.

The great strategic significance of the archipelago is a major reason for these evidences of international concern. The islands lie at the crossroads of the Orient. They dominate the vital sea and air routes between Australia-New Zealand and southeast Asia. In unfriendly hands they would endanger Singapore, the chief Far Eastern bastion of British trade and military-political influence, as well as the Philippines and Australia. Lying athwart communications between the latter two countries, they fringe the American defense zone in the southwestern Pacific for some three thousand miles.

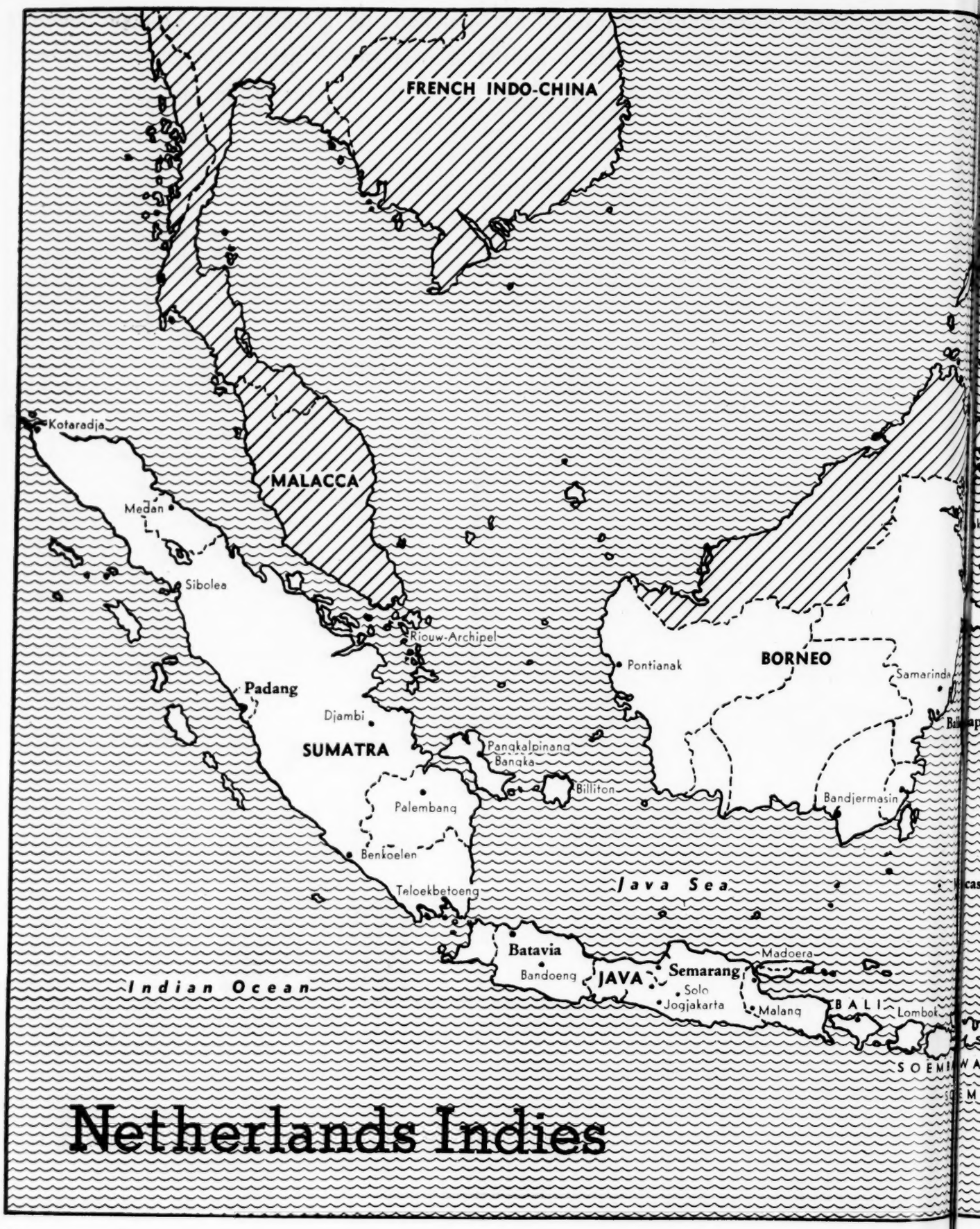
Gen Douglas MacArthur used Netherlands New Guinea and the islands of Morotai and Biak as stepping stones for the liberation of the Philippines. However, lack of adequate topographical maps handicapped his operations. Continuing American military interest in the archipelago is indicated by the War Department's recent agreement with the Netherlands Government under which a topographic survey of the islands by U.S. Army photographic planes was started in February.

The Indies are also of great economic importance. Before the war they were the world's chief source of quinine, kapok, and pepper. They furnished other important products in the following percentages of the world output: rubber, 40; copra, 30; palm oil, 25; fibres, 20; tea, 20; tin, 15. They also exported substantial quantities of coffee, sugar, bauxite, cigar tobacco and many other raw materials. Sumatra and Netherlands Borneo contain the only important oil reserves so far discovered in eastern Asia.

IN PREWAR DAYS the United States got more than 90 per cent of its quinine, pepper, kapok and tapioca from the Indies, 80 per cent of its palm oil, one-third of its natural rubber, a quarter of its tea, one-tenth of its tin, and important supplies of fibers, gums, insecticides, spices, cigar wrappers and cocoa.

Heavy exports of raw materials made the islands of great importance in prewar world trade. In 1938 and 1939 the United States imported 17.5 per cent of all Indonesian exports by value and supplied 13 per cent of

Ronald Stuart Kain, author of *Europe: Versailles to Warsaw*, became interested in the Indonesian problem while serving as press officer with SHAEF Military Mission to the Netherlands and United States Information Service in The Hague in 1945-46. He visited the Indies and Holland in 1947 to gather first-hand material for a book on the Dutch-East Indian question. *Netherland Indies: Crossroads to the Orient* is Mr Kain's first contribution to the GAZETTE. He is also a contributor to *Foreign Affairs, Yale Review, National Geographic,* and other magazines. At present he is associate editor of the New International Year Book.


FRENCH INDO-CHINA
Kotaradja
MALACCA
Medan
Sibolea
Riouw-Archipel
Pontianak
BORNEO
Samarinda
Padang
Djambi
SUMATRA
Pangkalpinang
Banka
Billiton
Palembang
Bandjermasin
Benkoelen
Teloekbetoeng
Java Sea
Batavia
Madoera
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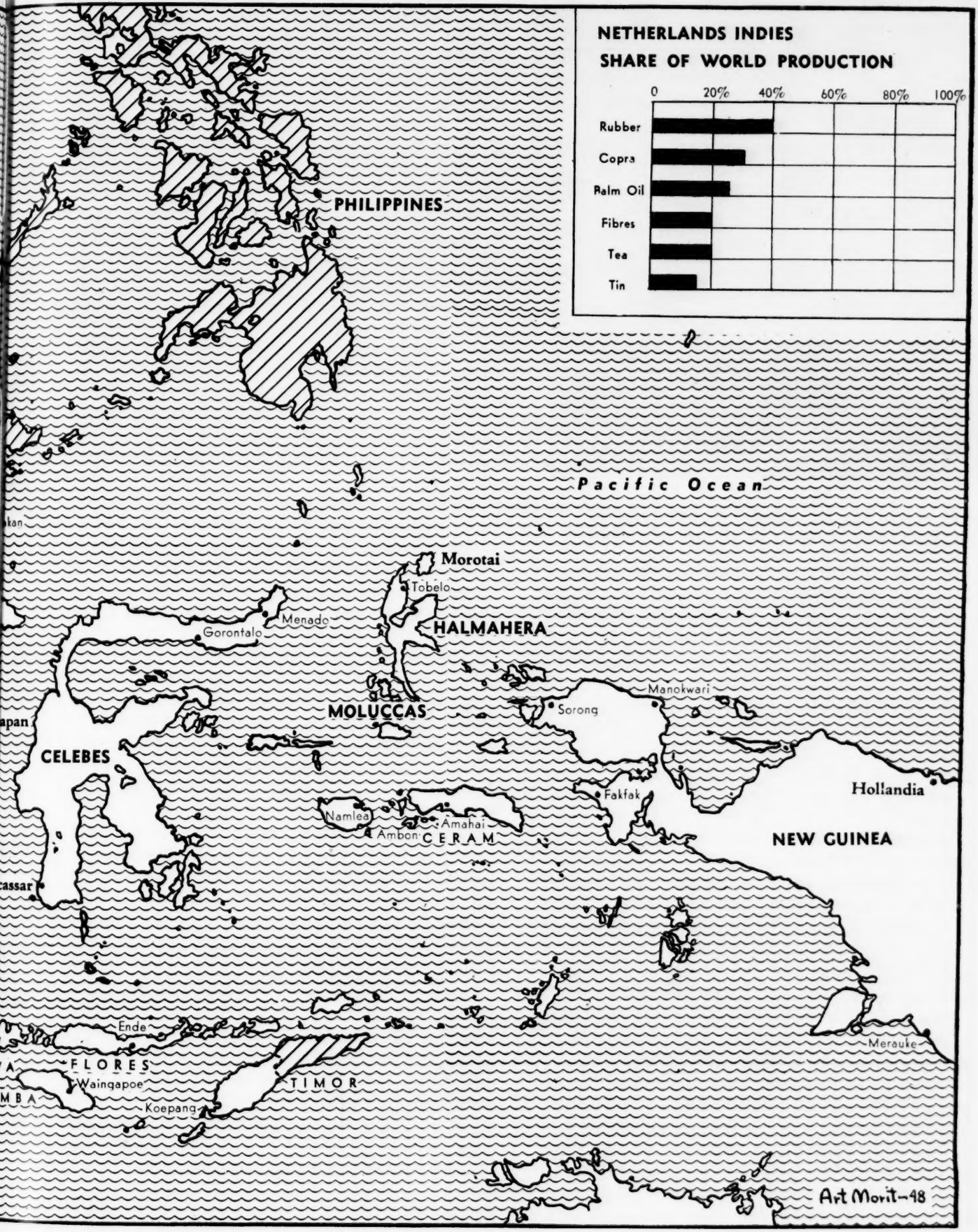
JAVA
Semarang
Solo
Jogjakarta
Malang
BALI
Lombok
Indian Ocean
Netherlands Indies


NETHERLANDS INDIES
SHARE OF WORLD PRODUCTION
0
20%
40%
60%
80%
100%
Rubber
Copra
Palm Oil
Fibres
Tea
Tin
PHILIPPINES
Pacific Ocean
Morotai
Tobelo
Menado
Gorontalo
HALMAHERA
MOLUCCAS
Manokwari
Sorong
CELEBES
Fakfak
Hollandia
Namlea
Amahai
Ambon
CERAM
NEW GUINEA
Ende
FLORES
Waingapoe
TIMOR
Koepang
Merauke
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Black Star

Prior to the war the Netherland Indies supplied the U. S. with one-third of its natural rubber.

the islands' imports. The American financial investment was small, some $250,000,000 being invested in oil fields, rubber plantations and manufacturing enterprises. There was a somewhat larger British investment.

To Holland the Indies are of supreme importance. The little kingdom owes its importance as a center of world trade and finance largely to its economic tie with the archipelago. The Dutch invested about a sixth of their national wealth there—much of it was drawn from the islands in the first place—and regularly derived 15 per cent of their national income from the colony before the war.

Since the end of World War II the Dutch-Indonesian struggle has to a large extent blocked the revival of the islands' production and trade—at the time when the world is crying for their products. This has spelled higher prices for American and other consumers, poverty and insecurity in the Indies, great losses to the Dutch and other investors, and a deepening of the postwar economic crisis, particularly in the Netherlands.

The powers are concerned, too, with the ideological struggle within the Indonesian nationalist movement. Democratic socialists, advocates of an Islamic state, pro-capitalist groups, and Communists are fighting for supremacy. The outcome of this contest will undoubtedly affect the alignment of the Indies in world affairs.

For a century preceding the Japanese capture of Singapore, the archipelago lay in the British sphere of influence. The Dutch ruled under the tacit protection of British sea power, even though Holland followed a policy of rigid neutrality in British wars of that period. To secure the acquiescence of Britain and the other great powers in Dutch control, the Netherlands adopted an "open door" policy which encouraged foreign investments and trade.

This was acceptable to all of the Pacific powers except Japan. The Japanese began to cast covetous eyes towards the Indies even before World War I. In 1922 the United States attempted to forestall this threat. It induced Japan, Britain, and France to join it in signing a four-power pact which pledged them to respect Netherlands sovereignty.

Heedless of this agreement, Tokyo seized the first opportunity to bring the islands under Japanese rule. After the German occupation of the Netherlands in May, 1940, Tokyo brought strong pressure upon the Netherlands Indies Government for far-reaching economic concessions designed to open the way for conquest. Backed by the United States and Britain, the Dutch resisted this pressure.

A few months after these negotiations were broken off, Tokyo made its surprise entry into World War II. There was a violent controversy within the Japanese supreme command over whether to strike first at the Indies or Pearl Harbor. But the blow fell on the American fleet.

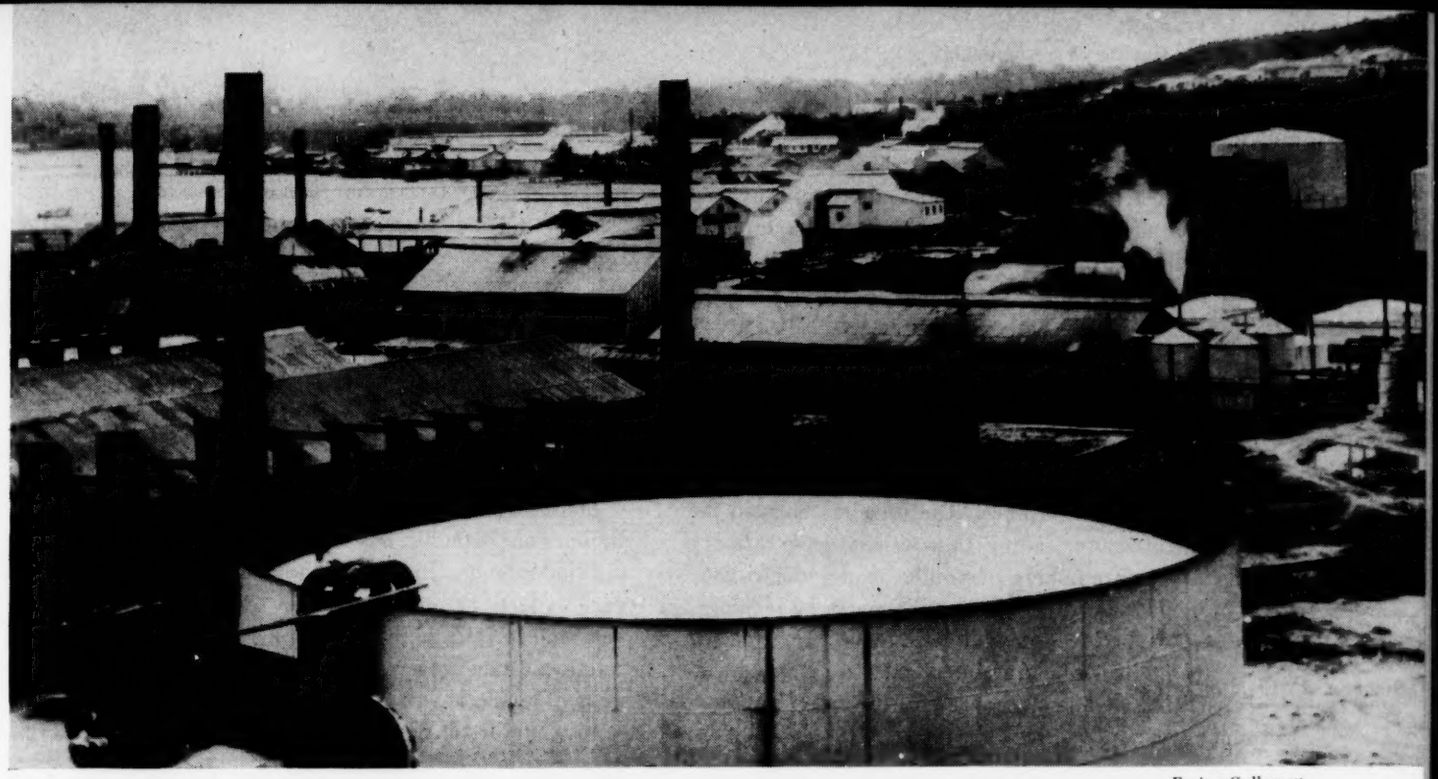
Without waiting for a Japanese invasion, the Dutch declared war and threw their small air and naval forces into action. Before the Japanese made their first landings in the Indies the Dutch had lost half their planes and a number of submarines.

Preliminary Japanese landings took place January 10, 1942, on the oil-rich island of Tarakan off the east coast of Borneo and on the Minahassa peninsula in northern Celebes. Then the main invasion forces, expertly coordinated and supported by overwhelming sea and air power, swept down from newly conquered Malaya and the Philippines and from the Japanese mandated islands in the Western Pacific.

The invaders swarmed into the islands to the north and east of Java, the military and political nerve center, cutting its communications with Australia before the final assault. About 5,000 British and American troops, with a few planes and anti-aircraft batteries, and small American, British and Australian naval contingents were sent to aid the defense of Java.

They arrived just in time to be engulfed in the Dutch disaster. The Allied naval force of five cruisers and nine destroyers under the Dutch admiral, Helfrich, was virtually wiped out in the decisive battle of the Java Sea on February 27-28, 1942. This catastrophe left the key island of the archipelago open for invasion.

Java resembles Cuba in shape. Its area, 48,500 square miles, is about the same as New York State but it has some fifty million inhabitants—three times the population of New York. A broad, low and extremely fertile plain extends along the north coast from west of Batavia



Ewing Galloway

Loss of oil from Balikapapan, Tarakan, and Palembang, Sumatra forced fueling of Allied forces in southwestern Pacific and Burma from Western Hemisphere and Middle Eastern sources of supply.

(1930 pop. 533,000), Dutch capital of the Indies, to Semarang (pop. 218,000), the chief port of central Java. Near the eastern end of the island on the narrow Strait of Madoera lies Soerabaja (pop. 342,000), the principal prewar Dutch naval-air base in the Indies and, next to Batavia, the largest commercial center.

South of the coastal plain the island is mountainous and of exceptional scenic beauty, with high upland valleys supporting dense agricultural populations. In these valleys lie Jogjakarta (pop. 137,000) and Soerakarta (pop. 165,000), capitals of ancient Javanese kingdoms and modern principalities, as well as Bandoeng (pop. 167,000), the chief prewar Dutch military base, and Malang (pop. 87,000).

While the battle of the Java Sea was in progress, the Japanese landed at three points on the north coast—at Cape Indramajoe east of Batavia and at Toeban and Rembang, small ports between Semarang and Soerakaja. Another landing, apparently a feint, was made on the western tip of the island on the Soenda Strait.

THE INDRAMAJOE FORCE advanced on Batavia, which fell with little fighting, and struck inland on two highways toward Bandoeng, 175 kilometers distant. On March 8 the Dutch land commander, Gen ter Poorten, outnumbered seven to one, surrendered Bandoeng and the bulk of the remaining Dutch and Allied forces. This hasty surrender was a severe blow to Dutch prestige among the Indonesians.

Meanwhile the Japanese forces at Toeban and Rembang, after taking Soerabaja and Semarang respectively, drove into the interior to occupy Jogjakarta, Soerakarta and the other chief centers. In ten days the whole of the island was in Japanese hands. The native population, untrained, unarmed, and of an exceptionally peaceful disposition, offered no resistance.

The easy Japanese conquest of the Indies opened the way for their offensive against Australia. It was checked by American forces in the Coral Sea and the Solomons and by Australian and American troops in New Guinea. But Australia—and New Zealand—narrowly escaped invasion. This experience brought home to the people of both these British Dominions the extent to which their security depends upon a friendly government and adequate defenses in the Indies.

The loss of the Indies was a body blow to the American and Allied war effort. It cut direct communications between Burma and the Middle East. It forced the United States to launch a huge and costly program for the production of synthetic rubber, to revive the old natural-rubber industry in the Amazon jungles, to enlist Latin American plantations in the production of fibers and other products previously imported from the Dutch colony, and to scour the earth for tin, bauxite and other minerals to replace those captured by the Japanese.

Loss of the oil fields centering in Tarakan, Balikpapan in Borneo, and Palembang in Sumatra necessitated fueling the Allied forces in the southwestern Pacific and Burma from Western Hemisphere and Middle Eastern sources of supply.

Japan gained everything the Allies lost in the way of military and economic advantage. The harvest of conquest was limited somewhat by extensive Dutch demolitions of industrial installations and ports and by the increasingly effective American submarine warfare on Japanese shipping. But Indonesian raw materials, food, factories and manpower greatly bolstered the Japanese war effort. Without the oil of the Indies and the rubber and tin obtained there and in British Malaya, the Japanese surrender would have come much sooner—at a great saving of Allied lives and money.

The Japanese occupation, extending from March, 1942, to September, 1945, had far-reaching political and economic effects upon the Indies. The invaders enlisted the cooperation of many leading Indonesians, gave military training to large numbers of youths, and indoctrinated many of the latter with Japanese military-fascist ideology. But at the same time they aroused widespread hatred and contempt by their brutalities, extortions and inefficiency. The result was a great intensification of nationalism among the Indonesians.

WARTIME DISLOCATIONS brought an inevitable decline in the native standard of living. But this was greatly magnified by wholesale Japanese requisitioning and looting and the diversion of several million peasants from agriculture to military or labor service. The population was left short of food, textiles, medicines and transportation. Diseases which the Dutch had largely eradicated became alarmingly prevalent once more.

The Japanese tore up 630 kilometers of railway line in Java and 90 kilometers in Sumatra, sending the rails and rolling stock to British Malaya, Siam and Burma. There was similar looting of ships, harbor equipment, factories and workshops. The careful Dutch forest and soil conservation programs were set back many years.

At least 20 per cent of the area in Java devoted to foreign-owned tea plantations was uprooted. Thousands of acres of rubber trees in Java and Sumatra were cut down. Thirty per cent of the coffee acreage was planted to other crops. Of the 112 sugar factories on Java, the Japanese demolished 36 and converted 42 to other purposes. All the stable industries of the islands suffered much the same destruction or dislocation. The Dutch estimated that direct damage to the Indies economy during the Japanese occupation totaled nearly a billion dollars.

When defeat was seen to be inevitable, Tokyo laid careful plans for an eventual comeback with Indonesian help. Appointing a hand-picked committee of Indonesian collaborators to take over the government, the Japanese commander for southeast Asia announced that independence would be granted in the name of Emperor Hirohito on August 19, 1945.

This plan miscarried to some extent. Tokyo's surrender came sooner than expected—on August 14. Under pressure of an anti-Japanese nationalist underground movement, the two top leaders of the independence committee, Achmed Soekarno and Dr Mohammed Hatta, then proclaimed an independent republic in the name of the Indonesian people on August 17. They became president and vice president, respectively.

In November, however, the anti-Japanese elements led by Sutan Sjahrir, a democratic socialist, won control of the new government and turned the revolution into democratic channels. They aimed at independence from the Dutch, the overthrow of Indonesian feudalism, and the establishment of a modern democratic state.

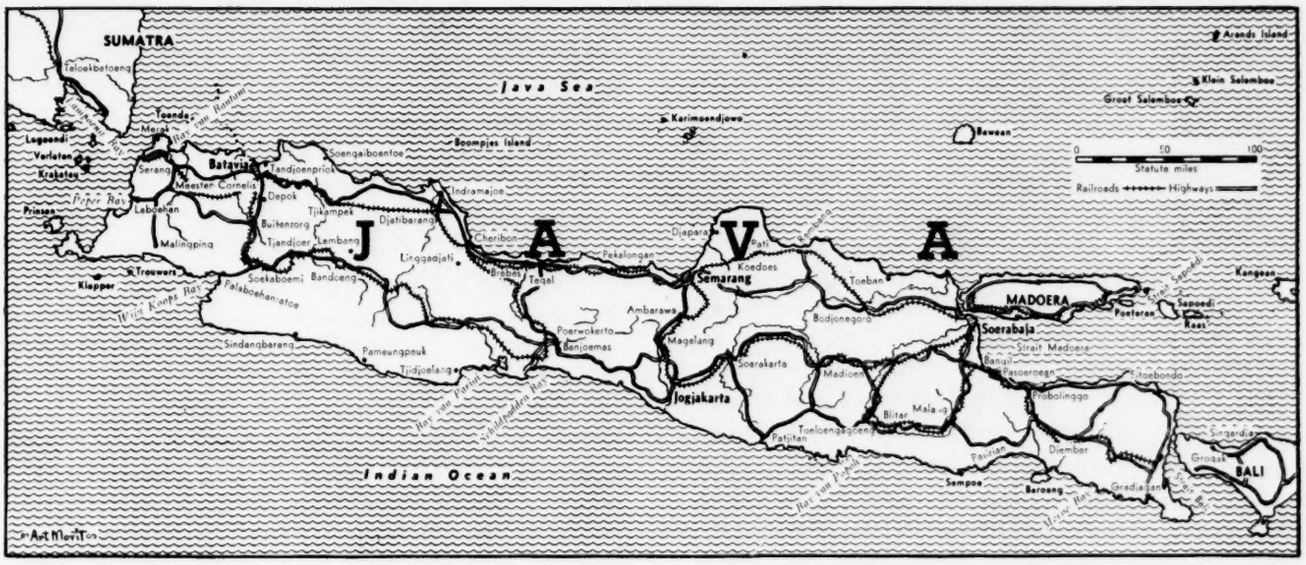
Since then the major external issue confronting the Indonesian Republic has been its future relationship to the Netherlands. Internally, the nationalists are split into various factions on the question of socialism versus private enterprise, on the orthodox Moslem demand for a religious state governed by Koranic law, and on the issue of a federal versus a centralized Indonesian republic.

Five major parties and many minor ones have developed within the Republic. All the larger ones are represented in a provisional parliament, to which the government is responsible. The struggle for control of the state thus goes on within the framework of a rudimentary parliamentary democracy, even though no parliamentary elections have been held. The key leaders of the Republic were all educated in Dutch universities and are oriented towards Western democracy rather than communism or Japanese-type fascism. However, all are opposed to unregulated exploitation of Indonesian resources by foreign capital.

THE MAJOR INTERNAL CONFLICT is between the left-wing bloc headed by the Socialists and the powerful and conservative federation of Moslem organizations known as the Masjoemi (pronounced ma-shú-mi). The Masjoemi is bitterly anti-Communist, has many anti-Western elements as well, and is hostile to any agreement with the Dutch short of outright independence. The Socialists and their allies, the Communists, Labor Party, and other groups, have accepted in principle a temporary political tie with the Netherlands as a means of consolidating the Republic.

The original Communist leaders in 1946 joined some members of the pro-Japanese clique and other dissident elements in an attempt to overthrow President Soekarno and Prime Minister Sjahrir. But with the suppression of the conspiracy, the Communist leaders were imprisoned and the party reorganized.

Alimin, a veteran Stalinist trained in Moscow for his revolutionary role, took over the leadership of the party. Since then it has followed a long-range policy of cooperating with the Socialists and other left-wing groups while attempting to infiltrate them and force them farther



to the left. So far, however, communism is a minor factor in Indonesian politics.

At the center, holding the balance of power between left and right, is the middle-class Nationalist Party, originally founded by Soekarno. It is primarily concerned with consolidating the Republic's independence. But it favors a non-sectarian state and a quasi-capitalist economy, with nationalization of the public utilities and government planning. Party officials in the government have agreed to a compromise settlement with the Dutch. But for internal political reasons, the Nationalist organization has held out for "100 per cent independence."

THE WAR'S SUDDEN END found exhausted, war ravaged little Holland unable to muster the troops needed to take over the islands from the Japanese. Accordingly, the Combined Chiefs of Staff in Washington gave this assignment to Adm Lord Louis Mountbatten's Southeast Asia Command on the day after the Japanese surrender.

A handful of British-Indian and Dutch native troops under the command of British LtGen Sir Philip Christison landed at Batavia beginning September 29, 1945. His task was to disarm and repatriate the 300,000 Japanese troops in the Indies, rescue some 200,000 Dutch civilian internees and Allied war prisoners, and maintain law and order until the Dutch could take over. It proved far more difficult and costly than the Allies had anticipated.

The nationalists in Java, equipped with arms voluntarily surrendered by or captured from the Japanese, rose in revolt against the restoration of Dutch rule. They avoided conflict with the British at first. But from September, 1945, until well into 1946, Java and Sumatra seethed with revolutionary violence. Hundreds of Netherlanders, Eurasians, Chinese, Amboinese, and Christian or pro-Dutch Indonesians were killed. Thousands more were imprisoned and held as virtual hostages.

Christison, although attempting to follow a neutral course, was caught in the middle of the Dutch-Indonesian struggle. He instructed the Japanese to maintain order. They did so in Sumatra at the cost of some fighting. But in Java they either willingly surrendered, or were driven from, all of the main centers except Semarang, Bandoeng, and two other towns in the interior—Magelang and Ambarawa.

During October British-Indian detachments took over these four points from the Japanese without incident, and also Soerabaja and Buitenzorg, the Dutch summer capital, 54 kilometers inland from Batavia. Other Indian units were landed at the three chief cities of Sumatra—Palembang (1930 pop. 109,000), in the southeastern part of the island and situated 100 miles as the crow flies up the Moesi River in the center of rich oil fields; Padang, metroplis of the populous West Coast region; and Medan (pop. 77,000), capital of the productive East Coast area in northern Sumatra, lying 14 miles inland from its port of Belawan.

LATE IN OCTOBER the British-Indian brigade at Soerabaja was suddenly attacked by large nationalist irregular forces. Fighting then spread to all of the other British-held centers. With some difficulty the British evacuated their small detachments, and the internees they were guarding, from Magelang and Ambarawa. They remained on the defensive at their other beachheads in Java and Sumatra while trying to promote a Dutch-Indonesian settlement and to secure the cooperation of the Republican government in evacuating Allied internees and Japanese troops from its territories.

Progress was slow until December. Then the British began to bring in heavy reinforcements, with a warning that they would reestablish order if the government of the Republic did not succeed in doing so. By February, 1946, British forces in the islands numbered 91,800 men,

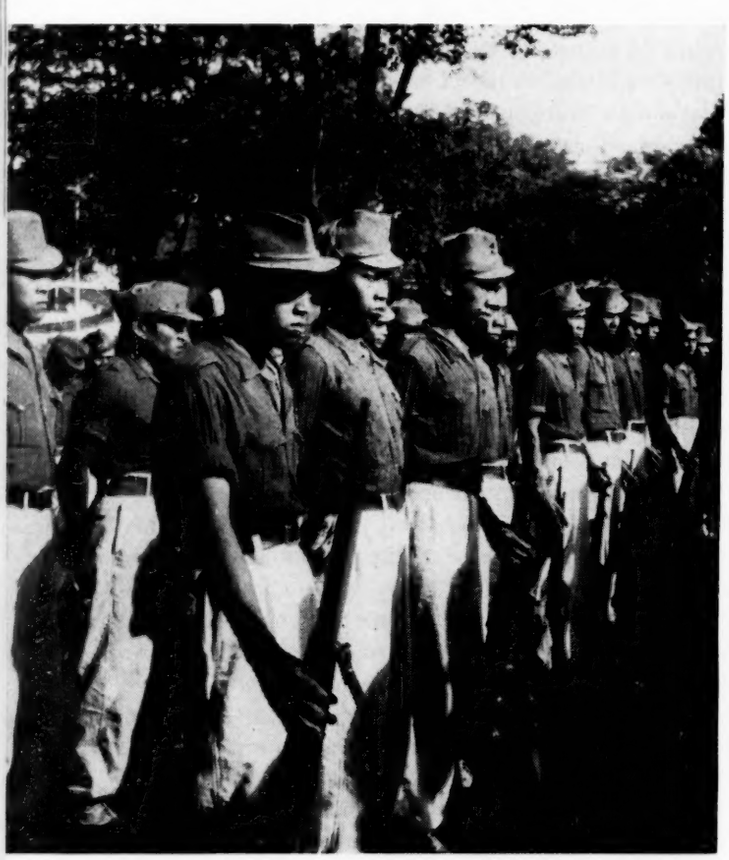
concentrated mainly in Java and Sumatra. They included the 5th, 23rd and 26th Indian divisions, 80th Indian infantry brigade, 254th Indian tank brigade, and the 5th British paratroop brigade, known as the "Red Devils of Arnhem."

Meanwhile Sjahrir's government had been gradually establishing a measure of authority over the irregular nationalist bands. It now agreed to cooperate in evacuating the internees and Japanese. Despite frequent interruptions, this task was virtually completed by November, 1946. The British also induced the Republic and the Netherlands to begin formal negotiations in February, 1946. On November 15 they finally initialled a basic political settlement, known as the Linggadjati Agreement.

Nationalist objections to the landing of Dutch troops led the British to hold Dutch reinforcements in British Malaya until after the start of the Dutch-Indonesian negotiations. But beginning in March, 1946, these troops together with fresh units from the Netherlands were permitted to land in Java and Sumatra. They gradually took over the Allied beachheads as British forces were withdrawn. In June the British turned over to Dutch administration all of the islands except Java, Madoera and Sumatra.

Throughout this period there were sporadic clashes and intermittent sniping and mortaring around the Allied perimeters in Java and Sumatra and along the Batavia-Bandoeng highway by which the Allied units in Bandoeng were supplied. However, on October 14 an Allied-Republican truce was signed as a prelude to the conclusion of the Linggadjat Agreement. With most of their assignment completed, the last of the British forces withdrew on November 29, 1946. During the occupation their casualties were 613 killed, 1,424 wounded and 327 missing.

The Republican forces, avoiding open combat, used scorched earth and guerilla tactics against Dutch.



Andrew Roth from Black Star

In the Linggadjati Agreement the Dutch recognized the Indonesian Republic as exercising de facto authority over Java, Madoera and Sumatra. It provided for the establishment, by January 1, 1949 if possible, of a sovereign, democratic federal state, the United States of Indonesia, with the Indonesian Republic, Netherlands Borneo and East Indonesia (including all the rest of the islands) as the three component states. The United States of Indonesia was to form a union with the Netherlands under the Dutch Crown to handle such joint interests as defense, foreign relations, finance, and economic and cultural affairs.

It was stipulated that any Indonesian territory unwilling to join the United States of Indonesia could establish a special relationship with the separate Indonesian states and the Netherlands. Moreover, all properties and civil rights of Netherlanders and other foreigners in the Republic were to be restored.

This agreement was ratified by the Dutch States General and the provisional parliament of the Republic and was then signed in Batavia March 25, 1947. But differing interpretations of the accord, mutual suspicious, and growing opposition in both the Republic and in Holland blocked all efforts to transform it into an effective working agreement.

On May 27 the Dutch submitted a "final" five-point proposal for implementing the accord. The Republic gave way on most of these points. But it rejected the demand for a joint Dutch-Republican police force to guarantee security in the Republic and a later ultimatum calling for the withdrawal of Republican troops from the Dutch perimeters, where intermittent fighting had continued. Accordingly, the Dutch on the night of July 20 launched what was officially described as a "police action" against the Republic.

The Dutch commander-in-chief, LtGen Siem Spoor, had a well-trained force of something over 100,000 men, equipped with modern American, British and Canadian weapons. Against them were arrayed 150,000 regular Republican troops commanded by Gen Sudirman and various irregular bands. They were inadequately equipped with light arms, mainly of Japanese origin, and their munition supplies were short.

In the 15 days between the start of the offensive and

the cessation of hostilities at the request of the United Nations Security Council, the Dutch achieved virtually all of their military objectives. Mechanized and armored Dutch spearheads sliced through Republican territories in both Java and Sumatra at will, meeting little organized resistance.

In West Java a Dutch column struck eastward from Batavia across the north coastal plain. Another drove northeastward from Bandoeng to take the chief Republican port of Cheribon. An amphibious force landed at Tegal, between Cheribon and Semarang, and joined the Dutch columns from Bandoeng and Semarang in clearing the eastern sector of the coastal plain.

From Cheribon and Semarang these forces then struck southward across the narrowest part of the island, capturing Salatiga and Magelang and pushing on to the south coast at Chilachap. There they joined forces with another Dutch amphibious force which had occupied this chief Republican port on the south coast.

Another column from Bandoeng advanced westward to take Palaboehan Ratoe on Wijnkoops Bay, thus isolating the Indonesian troops on the western tip of Java. Other units fanned out from Bandoeng and newly taken centers in central Java to occupy all the strategic points up to a line bisecting the island to the east of Kroja, Salatiga and Koedoes on the north coast railway east of Semarang.

OPERATIONS IN EAST JAVA were carried out largely by the Dutch marine brigade of some 7,000 men, based on Soerabaja, which had been trained and equipped by the U.S. Marine Corps at Camp Lejeune and Camp Davis, N.C., under a United States-Netherlands agreement reached before the end of the Pacific war. A series of amphibious landings at Probolinggo and other points assisted them in clearing the fertile coastal region extending from Soerabaja to the Bali Strait. Striking inland they captured Malang, the chief republican base in East Java, and Lumajang to the southeast of Malang, which was taken after a landing on the south coast. Other Dutch units landed on Madoera and occupied the south coast region.

When the Dutch ceased their offensive, they held all the main centers and lines of communication except for the east central part of the island containing Jogjakarta, the republican capital, Soerakarta, Madioen and some smaller towns. The Republican forces, avoiding open combat, resorted to scorched earth and guerrilla tactics. They left behind burned cities, towns, homes, estates and factories, and damaged installations of all kinds. Guerrilla forces by-passed by the Dutch spearheads held most of the territory behind the Dutch lines outside the strategic centers and lines of communication.

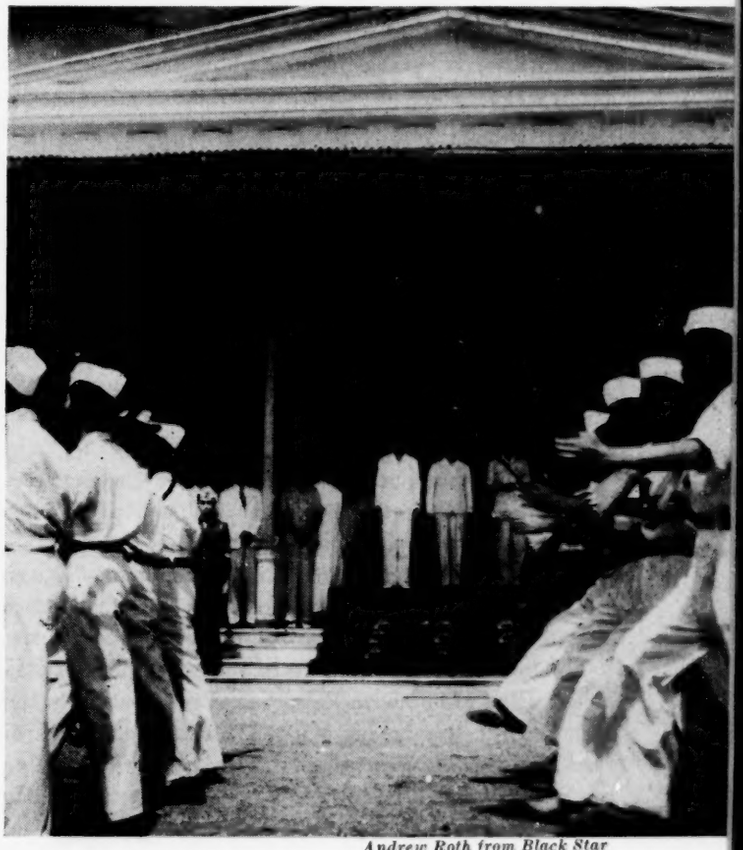
The Dutch operations in Sumatra followed a similar but less extensive pattern. Units based on Medan cleared a 125-mile coastal strip along the Malacca Strait between the Serangan and Asahan Rivers, extending inland to Lake Toba. This is a rich rubber and tea producing area.

The Palembang garrison burst out to take control of the territory within a radius of 50 to 100 miles around that city. Included in this area were the important Bukit Asem coal mining district and two rich oil fields in which American companies are interested. At Padang, the chief port and commercial center on the west coast, the Dutch expanded their perimeter to a radius of about 20 miles.

DUTCH CASUALTIES in the two weeks offensive were only about 75 killed, less than 200 wounded and 16 missing. They sustained higher losses in the guerrilla warfare that continued in many districts after the cease-fire order. A new truce agreement was finally concluded on January 17, 1948, under the good offices of a Three-Power Committee of the United Nations Security Council consisting of Australian, Belgian and United States representatives.

The truce left the Dutch in possession of their military gains pending plebiscites to be held within one year "for self-determination by the people of their political relationship to the United States of Indonesia." It thus underlined the decisive setback suffered by the Republic in the test at arms.

Regular Republican troops numbered 150,000 men, but they were inadequately equipped and trained.



Andrew Roth from Black Star

Meanwhile the Dutch undertook to get export production going again in the territories of the Republic now under their military control. In this they faced great difficulties due to continued guerrilla activities and sabotage, not to speak of the heavy damage caused by Republican scorched earth tactics, the preceding revolutionary violence, and the Japanese occupation. But by the spring of 1948 a small but gradually increasing flow of products from these areas was en route to world markets.

To facilitate restoration of internal and external trade, repairs on damaged railways, highways and ports are proceeding with the limited materials and funds available. According to Dutch authorities, the port and dock facilities of Tandjong Priok (port of Batavia), Semarang and Soerabaja have been restored to nearly the 1940 level. Chilachap harbor was severely damaged and two-thirds of its warehouses destroyed by the Republicans, but the entrance channel has been reopened and emergency godowns constructed. The port of Cheribon escaped serious damage. At Tegal many warehouses were destroyed and the channel obstructed by sand and sunken prahus. Probolinggo harbor is operating with half its prewar warehouse capacity.

By April, 1948, the Dutch had restored service on the following railway lines in Java: Batavia-Tandjong Priok, Batavia-Krawang-Cheribon - Tegal, Ambarawa-Tuntang (central Java), Soerabaja-Pasoeroean-Djember-Banjoewangi, Batavia-Buitenzorg-Soekaboemi-Bandoeng, Batavi-Poerwokerto, andoeng-Poerwokerto, Semarang-Poerwokerto, Semarang-Demak-Kedungdjati-Gebun, Semarang-Welers, and (for officials only) Batavia-Jogjakarta. In that part of Java still under Republican control, all railways were reported in operable condition.

The excellent prewar highways in Java and the other islands have suffered from lack of adequate maintenance since 1942 and in areas in Java and Sumatra they were damaged by Republican bridge demolitions. But traffic during the past six years has not been heavy. During automobile tours in Dutch- and Republican-held districts of West Java in March-April, 1947, the writer found the roads in fair condition. Now the Dutch are proceeding rapidly with emergency repairs.

In Sumatra the ports of Palembang and Padang were functioning at near the prewar normal in April of this year. Belawan, the port of Medan, had been dredged and wrecks moved to reopen it to ocean shipping. Except for Pontianak and Bandjermasin in Netherlands Borneo the other major ports in the Indies were in fair shape.

The following railways were in operation in the Dutch-held districts of Sumatra: Palembang-Prabamulik, Medan-Stabat, Arnhemia-Tebing Tinggi, Siantar-Tebing. Coal from the Bukit Asem mines was moving regularly via the South Sumatra Railway to Kertapati for shipment to various Dutch-held cities in the other islands.

From Batavia's Kamajoran Airport, transferred from military to civil jurisdiction February 4, 1948, Dutch military air services operated, in some cases irregularly, to 27 points in the archipelago. The main air traffic centers outside of Batavia were Soerabaja, Palembang, Medan and Makassar, capital of the new state of East Indonesia, in the Celebes. Catalina flying boats maintained services from Tandjong Priok to Pontianak, capital of the autonomous state of West Borneo, the oil centers of Balipapan and Tarakan in East Borneo, and the Riouw Archipelago.

Telephone services were in operation between Batavia, Palembang, Soerabaja, Bandoeng and Soekaboemi. In East Java all telephone communications were intact except for the exchange at Malang, which city was largely destroyed by retreating Republican troops.

The Dutch are also going ahead with preparations to establish the United States of Indonesia. An interim federal government for the Indies was established last January 13th, in which ten autonomous states and areas —four of them newly formed under Dutch auspices in occupied Republican territories—received representation. However, negotiations for the entrance of the Indonesian Republic into the interim administration have made little headway.

Dutch military action, in splitting from the Republic some of its most populous and productive regions, opened the way for the establishment of local governments more favorably disposed to cooperation with the Netherlands. Whether these local regimes will be upheld in the scheduled plebiscites remains to be seen. A committee of the foreign career consuls at Batavia, which investigated the observance of the United Nations cease-fire order in Java and Sumatra at the request of the Security Council, reported that the 1947 hostilities had perceptibly deepened nationalists' hatred toward the Dutch. This is likely to enhance Dutch difficulties in seeking a solution of the Indonesian problem along the lines of the Linggadjati Agreement.

While the Dutch retain military predominance, the archipelago will undoubtedly be militarily and economically aligned with the Western democracies in the developing ideological and political struggle with the communist powers. The Republic, resentful of Western support of the Dutch, has followed the example of India in adopting a policy of neutrality with respect to the communist-democratic conflict.

Economic reconstruction of the Indies will be hampered by nationalist obstruction as long as their political aspirations remain unsatisfied. And should world events result in a weakening of Dutch power, the resentment of the adherents of the Republic may well provoke a renewal of hostilities which would adversely affect the positions of all of the Western powers. US MC

Counsel on Defense

By Base Plate McGurk
Illustrated by TSgt John De Grasse

"I HEAR OLD 'SHIFTY' WAS TOO SMART FOR HIS OWN good," Dusty remarked as we finished our set of doubles and headed for a cool beer.

"Yeah!" Tex grinned, "evidently the old man wasn't too impressed by the way he defended that not guilty case. That letter on his record could have been avoided if he had done a little reading and asked a little advice."

"How did he get off base?" I asked.

"Seems that he dropped the ball twice," Dusty said. "In the first place, because of his personal dislike for the recorder, he caused a lot of wrangling by his cracks and insinuations. In the second place, he didn't look out for the rights of the accused. It turned out during the trial that he had not even informed the accused of his rights before the trial."

The matter rested there until after we had listened to a 30 minute argument between Johnny and Tex on the relative merits of blondes versus red heads and had started on our second beers. Since I knew that both Dusty and Johnny had acted, at one time or another, as defense counsels, I decided I'd try to clear up a couple of points. So, at the first opportunity, I asked Dusty where "Shifty" could have found out that he was off base in letting it be known to the court and all present that he thought the recorder was a jerk.

"Why, it's right in 'Courts and Boards'," Dusty said, looking surprised at my ignorance. "In one section is listed excerpts from the 'Canons of Ethics of the American Bar Association.' Natually, I can't recall off hand all of the things covered, but I would certainly brush up on them if I were appointed defense counsel. However, I do remember that it was said in one place that 'Clients, not lawyers, are the litigants' and that 'all personalities between counsel should be scrupulously avoided'."

"Some birds base their conduct on what they see in the movies," Tex drawled. "I remember one defense counsel who had the accused sniffling and crying during most of the trial. Of course, when the knuckle-head dropped the raw onion he had hidden in his handkerchief the jig was up. The defense counsel claimed that he believed that the accused was innocent and that he was just doing his best to defend him. Needless to say brother defense counsel got the works."

"Well, if he hadn't believed that the guy was innocent, he probably wouldn't have pulled such a trick," I remarked.

"That's not the point," Dusty said. "Regardless of whether or not you think that the accused is innocent, it's your duty as a defense counsel to protect his interest by all legitimate and honorable means. However, although you must present to the court everything favorable in defense of extenuation, you must never resort to fraud or trickery. Even if an accused admits that he is guilty, he still rates being represented by counsel and to a fair and impartial trial. In other words, Base Plate, it is the court's job, not the counsel's, to determine the guilt or innocence of the accused."

"Well, maybe Shifty's ethics weren't so hot, but what are these rights and interests of the accused that you keep referring to?" I persisted.

"There are certain duties that the defense counsel is expected to perform before the trial," Dusty said patiently. "As soon as he is notified that he is detailed as defense counsel he should secure a copy of the specifications upon which the accused is to be tried. In addition, he should secure any papers bearing on the case such as arrest reports and reports of investigation. After he has carefully examined all of this dope he is ready for an intelligent interview with the accused.

"Now this interview is very important and should be handled tactfully as well as carefully. If you fail to win the man's confidence you will not be able to get all of

The defense counsel should win the man's confidence in order that he may get all facts bearing on the case. There may be extenuating circumstances which will win his client a mitigation.

the facts bearing on the case and as a result, you'll be unable to do the best job possible. For one thing, you want to be sure and convince the accused that everything he discloses to you will be held in strictest confidence and, as I said, that unless he tells the whole truth you cannot do the best job possible."

"What if that absolute truth amounts to a confession of guilt?" I asked.

"That doesn't make a damn bit of difference," Dusty said. "Even if there is no defense to the specifications at all, there may be reliable testimony as to the man's good character and previous clear record or as to facts that will lessen the seriousness of the offense. Therefore, you must get him to tell you the truth and also find out if he knows of any witnesses or facts that were not included by name or inference in these papers you should have examined before conducting your interview.

"Enough for that! The next step before the trial is to carefully explain to the accused that he has the right to introduce witnesses in his behalf and that he also has the right to take the stand and testify under oath or to make a statement not under oath.

"The reason that it is so important that you carefully explain this right of the accused to take the stand is that if he does take the stand under oath he is not only subject to cross-examination just like any other witness but also a greater latitude may be allowed the prosecution in cross-examining him. Often the accused while on the stand will make admissions that will establish facts that the prosecution might otherwise be unable to prove. Therefore, you can see that if the accused cannot tell a story in his defense which is not only credible but which can also be substantiated, it will probably break down under cross-examination and do him more harm than good. Needless to say, no inference of guilt can be made if the accused does not testify, nor can the prosecution make any comment regarding his decision.

"As far as the unsworn statement is concerned, the accused should understand that it is merely a personal declaration and cannot legally be acted upon as evidence by the court. On the other hand, the unsworn statement does provide a means for introducing matters of extenuation and mitigation into the record. Based on these, the court may recommend him to the clemency of the reviewing authority. If, however, the statement contains matters which tend to support a plea of not guilty if established by evidence, the court must require a plea of not guilty to be entered and reject his plea of guilty."

DUSTY PAUSED while he secured another round of beer, and continued, "Now as for the preparation of the case itself, there's just a few things to remember. Of course, the defense counsel studies the specification and allied papers and analyzes the case just as does the recorder. Also both the recorder and the defense counsel interview witnesses. As long as the defense counsel acts in sufficient time he can request the recorder to secure the attendance of defense witnesses if he has any doubt about whether or not they would otherwise be present. In addition the defense counsel has the right to interview

any witness or prospective witness for the prosecution without the consent of the recorder. In fact, it's a good idea for him to do this since he can then be better prepared to cross-examine them. However, if he does interview them he must be careful not to cause the witness to suppress or deviate from the truth or in any way interfere with his honest convictions and conduct when appearing at the trial."

Johnny had been awfully quiet during all of Dusty's spiel, but now he entered the conversation.

"If you'll pardon me, Dusty," he said quietly, "I believe you forgot to mention one step the counsel for the defense should take before preparing his case."

"Shoot, Johnny," Dusty smiled. "I've probably forgotten more than one."

"I was referring to the duty of the defense counsel in advising the accused as to his plea," Johnny said. "I won't go into all the special pleas that are listed in Naval Courts and Boards, although a defense counsel should always check and see whether or not any of them fit his particular case. However, I do want to point out that the decision as to whether the accused will plead guilty or not guilty should always be made before the trial. The defense counsel should advise the accused that if he pleads guilty he is admitting the offense as it is alleged in the specification and that if there is any doubt in his mind as to whether he is guilty he should enter a plea of not guilty. He should also understand that if he pleads not guilty, it then becomes the recorder's job to prove that he committed the offenses listed in the specification. Above all, I think, a defense counsel should never allow a man to plead guilty in the hope that by doing so he may receive a less severe sentence."

"Thanks, Johnny," Dusty said. "Well, Base Plate, that just about ties it up. The duties of the defense counsel during the trial are laid down in Courts and Boards and should be thoroughly studied by anyone assigned such duty. However, it is well to remember that a counsel for the accused should always feel free to ask for advice from his commanding officer or any other superior officer in regards to his general duties or if he encounters a tough problem in preparing his defense."

"There's one thing I would like to know before we knock off here," Tex drawled. "Those rights of the accused you were talking about earlier concerning whether or not he should testify and so forth—are those the only rights the defense counsel has to look out for?"

"No," Dusty said, "those are rights that have arisen from rules of procedure or, in other words, rights which are the result of the rules that have been adopted in regards to the manner in which trials will be conducted. There are other such rights that we haven't gone into, such as the right to challenge a member of the court, and so forth.

All the constitutional rights are retained by the accused under Articles for Government of the Navy.

"However, in addition to all of these rights arising from rules of procedure, the counsel for the defense must protect the constitutional rights of the accused. By agreeing to be governed by the Articles for the Government of the Navy when we join the service, we lose our right to be indicted by a grand jury and our right to trial by jury. However, all of the other rights guaranteed an accused in a criminal proceeding by the constitution are retained by us. These rights are contained in the fifth and sixth amendment and cover such things as double jeopardy, testifying against oneself, speedy and public trial, calling of witnesses for the defense, confronting witnesses for the prosecution, right to counsel, and the right of the accused to know the nature of the cause and accusation against him."

"You know," Johnny said, as the meeting broke up and we started thinking about getting dressed for dinner, "to put it into a few words, the duties of a defense counsel consist mainly in looking out for the rights of the accused. Some gents get so fouled up in trial procedure and form that they forget about some of these rights. Of course, it is always caught by the different reviewing authorities, but it's a shame something so important can ever be forgotten. Think of how many people have fought and died and suffered just to establish these rights and preserve them for us." USMC

GUIDED MISSILES

MENTION GUIDED MISSILES TO A LAYMAN AND HE mentally pictures giant rockets swooshing across continents and oceans, destroying cities and other impediment of civilization with cataclysmic abandon. Happily, this is somewhat of a misconception. Unhappily, the possibility, while remote, is not altogether far fetched.

However, for the present at least, most military tacticians of sound mind see the guided missile as an extremely accurate supplement to long range artillery. The artilleryman can now steer his projectile to the target and can operate on a three-dimensional plane previously reserved for aircraft. The aviation tactician, conversely, must consider the definite threat posed by the guided missile as an antiaircraft weapon for the guided missile can literally search the skies for targets.

By 2dLt Robert E. Walton

But even these concepts are visionary and theoretical, for the problems involved in guided missile design, manufacture, and operation are immense.

Consider the simplest of guided missiles. Put control surfaces on an air-launched bomb and guide it, just a little, into a target. No navigational problems, no large acceleration forces, no need for a mechanical brain. But even these subsonic glide bombs tax our aerodynamical knowledge. Consider now the problems in a more sophisticated missile. Space limitations dictate the size of new electrical and mechanical control mechanisms. Once developed, these new and imperfect mechanisms are subjected to unknown and unobservable forces in free space. Each new development brings new problems.

Military missiles, in general, have the following characteristics:

A *body*—the aerodynamically designed casing.
Control surfaces—the mechanical means of guiding the missile.
A *brain*—the electrical or mechanical element which can accurately plot the position of the "bird," and furnish the necessary guidance.
A *propulsion system*—the missile must be self-powered.
A *war head*—the business end of the missile.
A *fuse*—a means—chemical, mechanical, or electrical—capable of detonating the war head.

Present designs indicate that 1,000 pounds is likely to be the minimum weight of an effective guided missile, and that five to ten feet is the smallest span of the wings or control surfaces to satisfy basic aerodynamic requirements. The average missile, weighing approximately 3,200 pounds, requires 360,000 horsepower to drive it at an effective speed. Here is a figure which has meaning, especially if we recall that our largest aircraft carriers developed roughly 300,000 horsepower at maximum speed, or that Boulder Dam generates 1,500,000 horsepower.

Launching the missile involves many complex problems. There must be a structure of sufficient strength to withstand the blast, capable of being trained and elevated, designed to permit rapid loading and firing as well as handling and servicing of the missile prior to launching.

Present launchers for guided missiles may be classified into two types:

Fixed launchers which send the missile off in a given direction not necessarily pointed at the target; and
Trainable launchers, which dispatch the missile in the direction of the target.

The type best suited to a particular military use depends both on the nature of the guidance system and the range to the target. The fixed launcher, which is usually vertical, is by far the most simple but is limited to use against relatively long-range targets and requires a separate ground guidance system for each missile. The trainable launcher is best suited for short ranges and makes the least demand on the guidance system of the missile, but it introduces engineering problems which are comparable with those encountered in the construction and use of the largest guns.

Since the launcher guides the flight of the missile for the first few feet of flight, or until it is airborne, its guiding members must hold the missile securely and at the same time must allow unobstructed passage for the fins, wings, and other external attachments at the time of the missile's departure.

A portable ramp type launcher seems to be the answer. Simple as it apparently is, the ramp must be compact enough to permit rapid disassembly and movement, but still be rigid enough to withstand the thrust of nearly 100,000 pounds generated by the take-off of even the smallest missile.

The possibilities of a catapult as a missile launching

Push a button and destroy a city? Not quite yet. We've come a long way toward remote control warfare, but the day of giant rockets crossing continents to destroy cities, while not far fetched, is still in the process of development

mechanism are also being experimentally considered. A catapult can both direct and accelerate the missile during its take-off. It therefore serves the same function for a missile as a gun tube does for a shell, except that the missile is externally loaded and externally fired. An example of this particular method of launching missiles was the catapult launching ramp employed by the Germans to fire their V-1 (Buzz-Bomb). The V-1 catapult gets the missile, weighing about 5,000 pounds, off at a velocity of 240 miles per hour.

The catapult must necessarily be large and heavy, elaborately constructed, and its length strictly limits the velocity to which it can accelerate the missile. But it possesses the advantage, from a military viewpoint, of being capable of continuous use because there is no expenditure of fuel and loss of materials. At the present moment the catapult is our most logical effective means of launching missiles.

TO DEVELOP THE VELOCITIES necessary to launch some missiles, a booster unit may also be used. The booster has been defined as an auxiliary propulsion system which travels with the missile and separates after its impulse has been delivered.

These auxiliary power units must have a high horsepower output; therefore, conventional engines cannot be considered. (However, it must be noted that the use of a parent conventional aircraft to aid the missile in reaching its cruising velocity is highly feasible.)

At present, rockets seem to be the most promising candidate for booster acceleration of guided missiles. Their simplicity, versatility, and the fact that their operation is independent of velocity and altitude give them an advantage over turbojet engines, their only likely competitors.

It will be recalled that rockets carry with them the fuel and oxidizer needed for propulsion, that they develop full thrust even at zero velocity and indeed that their thrust is independent of velocity. With suitable choices of nozzle area and design variables, rockets can be constructed to give a wide variation of thrusts and operating times.

Simple methods of coupling the booster to the missile have been devised. It is possible to use a single rocket or a cluster of rockets mounted at the rear end of the missile in such a way that the thrust is applied directly along the axis of the missile and so that the booster separates easily when it ceases to burn by virtue of its larger aerodynamic drag. It has also been found practical to use as a booster a number of rockets arranged around the outside circumference of a missile.

Sooner or later the possible use of the atomic energy for the propulsion of guided missiles must be given serious consideration. From basic physical laws, it may be assumed that sheilding requirements for either personnel or electrical equipment will prevent the use of conventional piles except in missiles considerably larger than our largest present airplanes.

The use of alpha emitters as either heat or momentum sources, and other such ingenious tricks can be eliminated as impractiable on the basis of elementary physics. We are left then with the possibility of developing special high temperature piles for either rocket, ram-jet, or turbojet propulsion. The feasibility of the use of atomic energy will rest squarely on the progress we are able to make in the fields of heat transfer problems and of the behavior of materials at high temperatures. Since these are precisely the same limitations that are encountered in the work on stationary power piles, and because of the space and weight limitations, we cannot be far wrong in assuming that atomic energy for airborne vehicles will

Twenty-five year old 2dLt Robert E. Walton began his military career as a radio technician, 2d class, in the Navy on 29 October 1942. A graduate of the Navy's ultra high frequency radio and radar schools, he was accepted for the V-12 program in 1943, graduated from NROTC, University of Texas on 30 October 1945, and was commissioned an ensign. Lt Walton served in the Caribbean and the Pacific before being placed on an inactive status in February 1946. He did research work on guided missiles at the Applied Physics Laboratory of the Johns Hopkins University from February 1946 to 19 September, 1947 when he was commissioned a second lieutenant in the Marine Corps.

take longer to develop than for ground or ship installations.

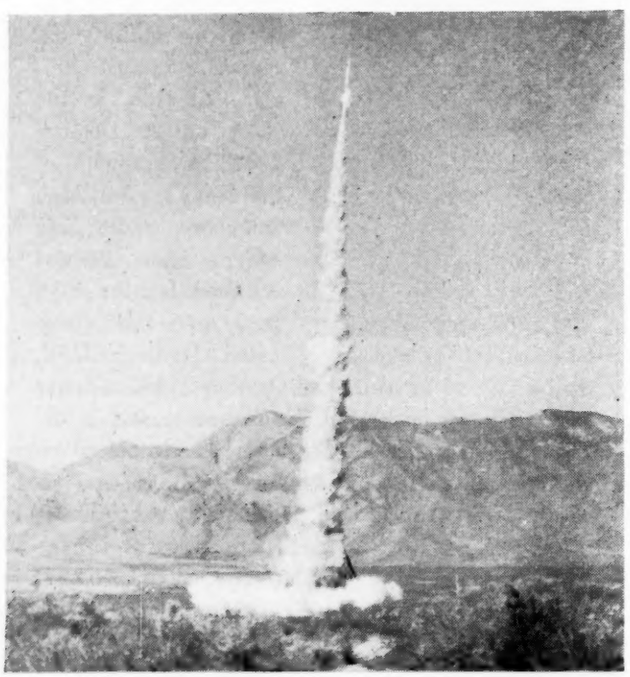
Finally, even granting that the use of atomic energy is technically feasible, there is serious doubt that it will be permitted on economic grounds. The "critical size" argument applies as usual whether atomic energy is considered for bomb or power use, and since flight times of missiles will always be short the missiles will arrive over the target with much valuable but unburned uranium. If no practical way can be found for eliminating this waste, the entire process would be too expensive and inefficient for use in military weapons. In satellite vehicles or space ships, arguments based on a short time of flight, of course, do not apply.

For guided missiles against ship or ground targets little can be said that is not already included in the tremendous store of knowledge gained from strategic bombing surveys. The fuze and warhead problem is essentially the same whether the explosive, incendiary, or other pay load is delivered in a bomb, transported by a piloted aircraft, or in a guided missile.

It is usually assumed that a proximity fuze of some kind can be devised which will function adequately once the missile gets within effective distance of the target. Both fuze and warhead, however, will have to be tailored to the intended target.

Let us consider the over-all "killing" problem: Designers must be continually reminded that for all conventional shapes of warheads, the spray is usually concentrated in a relatively small solid angle. Fragment size and number can be controlled to some extent, but in general, small fragments will lose velocity too fast to be effective at great distances. All these factors combine to make warhead performances disappointing and discourage the assumption that large warheads and sensitive fuzes may reduce the need for good guidance. Indications are that further control of fragment direction will be needed to attain an efficiency high enough to justify the tactical use of antiaircraft missiles.

The average missile, weighing approximately 3,200 pounds, requires 360,000 hp for effective speed.

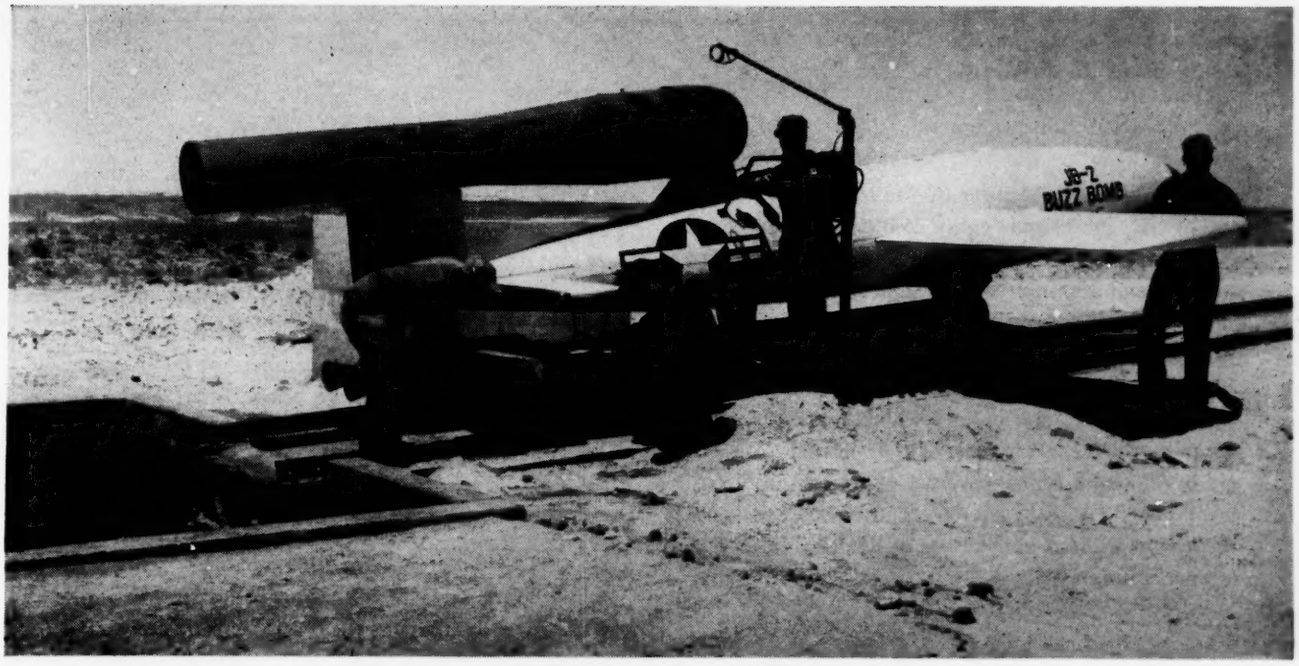


IN PROPULSION and launching, we are providing the mechanical muscles for our weapon; the guidance system is our attempt to provide mechanical brains. Progress in guidance has been painfully slow, yet ultimate performance must be attained before a practical weapon is possible. There is no point in developing expensive and complex devices to obtain "near misses." In antiaircraft work, particularly, it will be the last 100 feet that count.

The more obvious guidance systems all have their possibilities and their limitations, and compromises will have to be made between accuracy, traffic handling capacity, and susceptibility to countermeasures. Effectiveness is evaluated with respect to these factors; one system can handle practically unlimited traffic, another is practically impossible to jam. A preset system, like that of the V-2, is, of course, desirable on both these counts, but shows its weakness with respect to accuracy. A command system may have practically any desired accuracy, but fails with respect to countermeasures and traffic handling capabilities. The beam rider offers a fair compromise on the latter two points but has its own peculiar difficulties. At long ranges the divergent beam introduces large possible errors unless homing is added. Furthermore, the accuracy required assumes the development of receivers and control gear capable of keeping the missile in the beam, and this is still an unsolved problem.

In practically all considerations of guided missiles it is tacitly assumed that some kind of radio device will be used for control. This seems that the advantage as far as jamming opportunities are concerned unavoidably shifts to the defense as the missile approaches the target. Even if planted homing beacons are used, the defense will have the advantage of decoys of greater power. On the other hand, the offense will retain the advantages of initiative and surprise.

Some of the implications of the above are very clear. First, a wide range of control frequencies must be available, the frequencies must not be standardized, but must be changeable on short notice, and coding systems must be devised so that missile controls cannot be jammed by any single transmitter. Second, missiles must be produced, distributed, and used in blocks. Each group should have different sets of controls and each group should be expended in a single attack or campaign, since the control frequencies will be essentially obsolete once



The JB-2, a copy of the German V-1 which rained down on England during the war, is still yielding important data in tests conducted at the Air Force guided missile base test at Alamogordo, N. M.

used. Third, the greatest possible secrecy will be none too good on all counter-countermeasure devices, since practically any radio device can be jammed once the details of operation are known.

The countermeasure problem is obviously going to be very serious and must not be minimized or neglected. At the same time it would be quite wrong to jump to the conclusion that even early versions of guidance equipment must include countermeasure features. After all, it is *necessary* for the missile's guidance system to guide; it is only desirable that it be immune to countermeasures. The guidance problem will be hard enough without including countermeasure specifications for the early designs. Finally, it would be equally wrong to conclude that since the missile controls can in most cases be jammed, guided missiles themselves may be impractical. The V-2, though inaccurate, was essentially unjammable.

These are some of the technical problems connected with every guided missile. To emphasize the complexity of the field as a whole we need only to recall that there are at least half a dozen systems each for propulsion, launching, guidance, homing, and for fuze and warhead combinations. These categories alone are enough to produce several thousand different missiles.

To the technical complexity add the tactical complexity:

The artilleryman can argue that rocket propulsion is a natural means of extending his range and that guidance, homing, and proximity fuzes are mere extensions of a long-established art. Especially in connection with anti-aircraft work, guided missiles appear as the logical culmination of a series of projectiles incorporating a gradually increasing proportion of mechanical or electrical brains.

The bomb designers were among the first to propose attachments which would permit the correction of trajectories. As these were perfected to allow greater and greater control, a whole series of guided missiles were produced. The glide bomb series was employed with great success towards the end of the last war, and will become more efficient as each guidance problem is solved.

The Navy, too, has a stake in guided missiles: tests have already proved the feasibility of launching missiles from surface and sub-surface vessels. Gunfire support of amphibious operations may be supplemented or even supplanted by guided missiles; torpedoes will become even more effective with improved guidance; surface fleets may fight it out at great ranges with guided missiles; a single submarine may devastate coastal cities.

The art of guided missiles is still in an early stage of technical development. Practical experience in the launching and flying of these missiles has stressed difficulties to such an extent that the layman might be tempted to decide that as weapons they may not be worth the trouble or the expense they involve. This would be a dangerous conclusion. The V-2 exists, and, with only a little less awkwardness on the part of the Germans, it could have been used at least a year earlier, and might have changed the course of the war. US MC

In Brief

The frigid temperatures of Antarctica are not too tough on motorized equipment, according to a Navy survey. After a year's exposure to sub-zero weather and 100 mph winds, a Navy jeep and other vehicles showed little deterioration and started off with scarcely a murmur. A weasel was dug out of a 10-foot drift and started running on the same fuel, lubrication, and battery which had been snowbound for a year. It was first preheated with hot air to remove a four-inch crust of ice on the instrument panel. A jeep, left in a canvas-covered shed, started up without preheating, as did two diesel motor generators.

The effective range of the Air Force's B-29s is being stretched. Two of the bombers, carrying normal combat fuel loads, flew non-stop from Hawaii to Florida and had 250 gallons of gas apiece left over. And two other 4,600 mile jaunts were made without refueling. A system of midair refueling developed since the end of the war will further increase ranges by 40 to 75 per cent, according to USAF spokesman. This will reduce overseas logistics requirements in terms of manpower, time, and money, particularly in the early stages of a conflict.

Research into military meals resulted in the development of an *anti-hunger pill* that destroys appetite. After taking a few of the pellets, a hungry man can only nibble at a full course dinner, although it would still look delicious to him. Besides being a boon to the obese, the pills will come in handy for the hungry soldier who is miles away from the nearest meal.

The Navy has set up its own "Ft Knox" as an *experimental unit of 320 boots* began training at San Diego recently. Idea is to determine the adaptability of present Navy recruit training methods to UMT. Besides standard Navy training, the experimental unit is getting further training based on ideas and suggestions in the report of the President's Advisory Committee on UMT.

The *new draft law*, aimed at bolstering America's armed forces as a warning to aggressors, authorizes expansion of the Army, Navy, Marine Corps, and Air Force to a new peacetime high of 2,176,883 officers and men. Volunteers and reenlistments are expected to fill up most of the billets, leaving about 225,000 men who must be drafted. All men aged 18 through 25, except members of the regular armed services, reservists on active duty, and foreign diplomats and members of their families must register. The date has not yet been set, but is expected to be in mid-August.

Underwater tests in a California lake are bringing about *"tremendous progress" in torpedo design*, according to a Navy announcement. Since the tests began in 1943, more torpedoes have been fired into the manmade lake at Norris Dam than were fired at Jap ships by American carrier aircraft during World War II. Airplane torpedo drops are simulated by a compressed-air launching tube 300 feet long. The present tube is fixed, so that the torpedoes strike the water from only one angle. A new device is being built which can be moved up or down a ramp, allowing torpedoes to strike the water at any desired angle.

The Air Force has begun forming its *first combat squadron of F-86A fighters*, the fastest turbojet combat plane in the world. Officials said the first two produced by the North American Aviation Corp., Inglewood, Calif., have been delivered, and are undergoing performance and gunnery tests. The fighter, with swept-back wings and the most powerful jet engine built in this country, is designed for speeds of better than 650 mph.

The Air Force said recently its *overseas air rescue service* has been tripled in size by the addition of four more flights. The new flights will be located at Stephenville, Newfoundland, and Goose Bay, Labrador; Lagens Field, Azores, and Kindley Field, St. George, Bermuda. The first two flights were set up in Dhahran, Saudi Arabia, and at Tripoli, Libya, last May.

Procurement of 1165 Navy aircraft has been planned under the $653,635,000 authorized for that purpose by the Secretary of Defense from Congressional appropriations. Of this number, 576 fighters will be purchased from McDonnell, Grumman, Douglas, and Chance Vought Corporations. Douglas, Grumman, and Martin will furnish 426 attack type aircraft, while the Lockheed Aircraft Corporation will provide the Navy with 82 patrol planes. In the transport field, Fairchild, Grumman, and an undetermined manufacturer will build 16 transport planes. Thirty-seven helicopters will be manufactured by the Sikorsky Aircraft Corporation. To date, the types of the 28 additional planes have not been decided

The Air Force has ordered *28 mammoth troop and cargo transports* as running mates for its long-range bombers. Each can carry 222 fully equipped troops or a 25-ton payload 2,400 miles without refueling. The new sky freighters, known as C-124s, are two and a half times the size of the familiar C-54s used during the war. Patterned somewhat after the Navy's famous LST landing ships, the C-124 has a built-in nose ramp which can be dropped to bring aboard or unload such heavy equipment as tanks, field guns, bulldozers, and other materials needed for the building and defense of advanced bases. The plane can also be converted into a hospital craft.

The installation of 950 mph rocket missiles as standard armament on new F-84 Thunderjet Fighter planes of the Air Force was announced recently by the Republic Aircraft Corporation. Secret firing tests at the Army Ordnance Proving Ground, Aberdeen, Md., resulted in the approval of the new high-velocity rocket armament for military operation.

A new Sikorsky helicopter for use on aircraft carriers, battleships and cruisers is undergoing tests. It will have all-metal blades which lend themselves for de-icing, rather than the conventional metal-framed ones. A hatch in the cabin floor will make air-sea rescue easier and will facilitate cargo loading by permitting installation of a hoist. Blind flying instruments have been installed. It will have a rate of climb of more than 1,000 fpm and a forward speed of 110 mph.

Because of the shortage of swords, Marine Corps Headquarters recently announced that they will not be "required equipment" for officers until a later date. A previous directive set June 30 as the date by which all Regular and Reserve officers should be equipped with swords.

Organized Marine Corps Reserve units in eleven cities announced recently that they are in need of junior officers. The units are located in Minneapolis, Minn; Toledo, Ohio; Little Rock, Ark; Omaha, Neb.; Dover, N. J.; Rome, Ga.; Chattanooga, Tenn.; Little Creek, Va.; Oakland, Calif.; and Brooklyn, N. Y.

The Navy has *abandoned plans to return its 500 contract aviators* to inactive duty as their terms of obligated service expire. Instead, all such pilots whose contracts expire during fiscal 1949 are being given the opportunity of requesting retention until the end of fiscal 1949. The Navy Department is making no promises, however, that all aviators who request retention will stay on active duty for the full fiscal year. All of the Navy's contract aviators are reserves.

Women service personnel may now be members of the regular establishment and the Air Force has established a new women's unit known as "WAFs" by virtue of a new law signed recently by President Truman. Initially, a build-up to the following strengths at the end of two years is authorized: Army—500 officers, 75 warrant officers, 7,500 enlisted women; Navy—500 officers, 20 warrant officers, 6,000 enlisted women; Marines—100 officers, 10 warrant officers, 1,000 enlisted women; Air Force—300 officers, 40 warrant officers, 4,000 enlisted women.

Guided missiles were launched from the submarines *Pomidon* and *Diodon* during recent maneuvers off the California coast. According to the Navy's announcements, targets for the missiles included surface vessels as well as shore positions. Operating under simulated battle conditions, the two high speed submarines demonstrated their effectiveness in this new phase of naval warfare. Missiles were launched while the submarines were surfaced.

Leadership and Fear

By LtCol R. C. Williams, Jr, Inf

IT HAS OFTEN BEEN SAID THAT INTELLIGENT LEADERship can be defined as the successful handling of men. This successful handling is an art, for it embraces not only the needs and the desires of the men, but also their mental state.

The mental state in turn has several well-known synonyms. Some marines prefer to call it "morale," others refer to it as "teamwork," but the majority of the officers and non-coms in the Corps proudly define it as the "fighting spirit of the Marines." Therefore, since this mental state, regardless of its synonyms, is one of the important elements of intelligent leadership, we who are leaders should delve into an earnest study of it.

But there is yet another reason for our examining this quality called the mental state of the soldier. The mental attitude of the soldier is vitally connected with psychology, with psychiatry, and with fear.

A Marine officer once remarked that, in his opinion, one of the main reasons for the splendid combat record of the Marine Corps was that the marine was ignorant of the meaning of the word "fear." This officer was in error in two counts. In the first place, the Marine Corps had to expand overnight after the attack at Pearl Harbor. For every marine who had any previous experience during the years of peace, 20 others had to learn how to be a marine hastily, under pressure. Many reached battle before their full training period was completed. And those new men were from every walk of life. There were fair-skinned men, dark-skinned men, redheads, blondes, athletes, bank clerks, students, and musicians. And among this huge group of newcomers were those who already knew the meaning of the word "fear."

Secondly, the Marine officer inferred that the leaders of the Marine Corps, the officers and the non-commissioned officers, did not need to concern themselves with fear among their men. That also is erroneous. A careful check of the marines who led troops in combat will reveal that these leaders did at some time encounter someone who was afraid when the battle began. The same situation obtained in the Navy, the Army, and the Air Force. The point is that the Marine Corps leader can never hope to teach a man to be ignorant of the word "fear." The best he can do is to control fear in his subordinates. Fear is a mental state which must be handled by the leader with as much skill as that employed by a surgeon in a difficult operation.

The second reason for examining this quality called "fear," then, is to enable the leader to handle it properly in his men.

IN ORDER TO GET A TRUE PICTURE of the subject, let us turn back to one of the bloodiest assaults in American history—the battle for Tarawa. It will be recalled that over 3,000 Japanese Imperial Marines defended the coral island of Betio in the Tarawa Atoll. Concrete bunkers impervious to naval gunfire and aerial bombs had been built there by 1,500 laborers. Guns from the British fortress of Singapore, obstacles, interlocking machine gun fire, blockhouses with walls of sand and coral 10 feet in thickness and covered with iron rails and logs, all these had to be destroyed before the island could be called "secured." The bombardment by naval vessels and carrier planes covered the island with flame and smoke. Then the 2d Marine Division started towards the shore. The first three waves of Marines managed to get ashore at high tide and to stay there, despite the intense machine gun fire from the Japanese bunkers. The fourth and fifth waves were caught out on the reef. Marines from these waves pushed ashore in water up to their necks, dodging the continuous stream of machine gun bullets. That night more reinforcements were landed. At dawn, however, the wily Japs caught some marines on one of the beaches in enfilade and poured a devastating fire into the marines' precarious position. It took cruisers, destroyers, planes, flamethrowers, assaults by marines armed with TNT, a systematic reduction of all of the Jap pillboxes and bunkers to wipe out the enemy.

Now let us go back a moment. Pvt Smith was one of the men who were caught out on that reef. He had never been in combat, in fact he hadn't been a marine for very long. The firing, the dive-bombing, the hail of machine gun bullets, the cries of the wounded, the confusion, and above all, the danger of his position terrified him. He froze. In fact, he was of no value when he finally did get to the beach, for he got into a hole and stayed there.

Now we, as leaders, must ask ourselves whether Smith was "yellow," "scared," and a disgrace to his unit and his country, or whether we might have helped him before he got into action so that this freezing would never have occurred. In other words, is he entirely responsible for his actions, or must his platoon sergeant and his com-

". . .Fear is the most expensive of human luxuries. It is so costly it has to be considered in terms of health and happiness, lives lost and wasted, and in industrial and military casualties. . ." Intelligent leadership is the cure

pany commander accept some of the blame?

Psychiatrists tell us that nobody is born afraid. The man who is a coward spent a lot of time and effort practicing to get that way. Practice, not wishing, determines what a man learns, providing that he has the capacity to learn anything. The coward, with a normal capacity for learning fear, has lived in an environment which favored learning it. He practiced fear as thoroughly as Yehudi Menuhin did the violin to become a violin virtuoso, as diligently as Lawrence Tibbett practiced singing.

But, psychiatry teaches us that a man could learn how not to become a coward as easily as he could learn how to write. Furthermore, if he fails to try when he is headed in the right direction the results will be entirely his own fault. Unfortunately, most of the men who "froze" in combat when the fighting started did not want to be terrified. They simply did not know how to avoid it. As an expert in being afraid, Smith was more afraid of life than of death, but more afraid of fear than of either.

The coward, according to the psychiatrist, is afraid because he acts afraid, and as long as he acts the part he will be afraid. The coward is a past master in producing the emotion of fear. It is as difficult for him to stop being afraid as it would be for you to become a good coward.

FEAR IS THE MOST EXPENSIVE of all human luxuries. It is indulged in most when a person can least afford such indulgence. Pvt Smith, for example, became afraid and thus decreased his effectiveness when a vital battle was going on and he needed to be at the peak of his efficiency curve.

Indeed, the cost of fear is so huge that it cannot be estimated. It would have to be considered in terms of health and happiness, in terms of lives lost and wasted, industrial and military casualties, and in terms of the care of the insane, most of whom are that way because of fear.

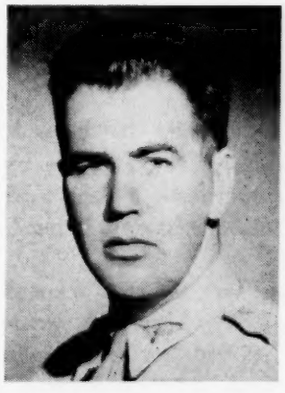
For example, 500,000 people in our country today—one out of every 260—are in mental institutions. This means that of the total number of people in hospitals in the United States today, for all causes including maternity cases, more are in for insanity than for any other cause.

But the cost of fear includes not only the hundreds of thousands of Marine, Navy, Army, and Air Corps shell-shock victims, neurotics, and suicides, but also those people who have failed because of the fear of failure and the alcoholics and drug addicts who are afraid of their own thoughts.

The officer and noncom in the Marine Corps must understand how to cope with fear in one of their subordinates. They must appreciate that fear can be compared to an airplane. If used by a skilled operator, the airplane can be an advantage to us, but it is dangerous if used by the amateur and the unstable person. For example, it is fear of what will happen to him that in most cases keeps the average soldier from stealing, killing, and disobeying the laws of his country as well as its social customs. Fear of the consequences also stimulates the marine to harder work in order that he might reach those goals in life which meet with the approval of his fellowman and to avoidance of those failures which are looked down upon by his buddies, his family, and his friends.

The next fact which the psychiatrist furnishes to the leader is that excessive fear interferes with learning, whether it be in any mental or physical accomplishment. The marine who is very much afraid cannot move as fast, think as clearly, shoot as straight, or stop as suddenly as the man who is only mildly afraid. The latter is afraid merely to the extent that he is cautious.

The case of Smith at Betio is an example of fear in its most extreme form. This state makes soldiers useless, crazy, and dangerous to his buddies. If he happens to be



LtCol R. C. Williams began his Army career as a $17.85 a month private; won an appointment to the Military Academy, and graduated as a second lieutenant in the Infantry. Assigned duty with the 7th Infantry Regiment, the Colonel served in a rifle company, heavy weapons company, and on the regimental staff. During the North Africa campaign he commanded a battalion of the 7th and was a member of Task Force planning staff for the invasion of Sicily. A trip to the states aboard a hospital ship followed the battle for Sicily. After serving as an instructor at the Infantry School, he participated in the campaigns for Okinawa and Leyte with the XXIV Corps.

a noncom or an officer, he is apt to expose not only himself but also his subordinates to unnecessary danger. The medical records bear out the fact that some cases of this type have lost their power of thought and action, while others have started shooting at friends and enemy alike.

In studying the mental state of his men the Marine leader must beware of the man who has no fear, for the latter will not be amenable to discipline, nor will he be judiciously cautious. On the other hand, the leader must also beware of the soldier whose fears are excessive, for he will be the unit "worry-man," will shirk responsibility, will be a regular subscriber to the sick report, and probably will be a psychological casualty when the unit gets into combat. This type may become a liability at any time, rather than an asset, especially during combat, and therefore is more dangerous than the enemy.

BEFORE CONTINUING, perhaps a definition of fear might aid in the discussion of what the leader should know about the subject as related to intelligent leadership. The psychiatrist tells us that fear is body activity in relation to the particular situation in which a person acts afraid. Things did not frighten Smith at Tarawa. He scared himself! If a marine states that he is afraid of combat, of climbing down a cargo net at San Diego, or of riding in a plane at Cherry Point, he is merely admitting that his ideas about fighting and height are such that, when he thinks of these, he acts afraid.

The doctor would provide another definition of fear. He would term it as basically a physiological state patterned after the startle response. The startle response, in turn, is exemplified by the response of all human beings to a loud noise.

As seen by a high speed camera, the startle response involves most of the muscles of the body. If Smith, when he froze at Betio, could have been photographed by a high speed camera, the film would record that his legs were bent slightly, his hands clenched, his elbows bent, his head jerked back, his neck and facial muscles tensed, and his diaphragm elevated which caused that familiar weak feeling.

But the doctor also will insist that, although the startle response apparently is inborn and you and I cannot prevent ourselves from getting startled, we can, however, control our reaction to it. This also proves that the officer and the noncom should look into the matter of fear and thus be capable of assisting their men to control it. Preparedness and relaxation, for example, decrease the startle response.

Some emotional changes of the human body are observed by people, while other changes are so slight that it is impossible to detect them. As an illustration, some men can actually check electrical current by putting their finger into a light bulb socket while others do not have the resistance to currents in their skin.

The medical reports of World War II also bring out the fact that it was not uncommon for a soldier to believe he was afraid when he was not afraid, and to be afraid without being aware of fear. Humans, as a rule, believe themselves to be what they think they should be. In other words, we are very adept at convincing ourselves of the truthfulness of those things which we wish to believe. Some of the marines at Tarawa, some at Iwo Jima, and some at Okinawa were undoubtedly afraid, but did not know that they were afraid. They had been imbued with the "esprit de corps" of the Marines. But that does not mean that every marine had that spirit nor that every marine in any future battle will have it. History has proven that the Armed Forces never have had the time necessary to train the men who come into the ranks in time of war in all of the military subjects necessary to proper behaviour on the battlefield. There is nothing which would support the assumption that the Marine Corps will have the time to fully train a new man when the next war arrives.

So much, then, for the definition. Now, what will a soldier fear? First, he may be afraid of anything which he can think about. The more intelligent the soldier, the greater the total of things to which he can relate his fear responses. A good example of this point was illustrated at Okinawa. Two marines were in a double fox hole one afternoon while the Japs were dropping mortar shells in the immediate vicinity. One of the men, an ex-truck driver, with not too much of an educational background behind him, spent his time commenting on the poor marksmanship of the enemy. The second marine, a brilliant lad who had taken honors at school and at the university while he studied engineering, was visibly concerned with the firing. The first man accepted the firing. The second, with his knowledge, began to figure out "overs," "shorts," "brackets," trajectories, and the like. Therefore, the more intelligent soldier will make the more skillful coward since he knows more things about which he may act afraid or concerning which he may worry.

THE FEAR of being afraid in itself is a common and a terrifying experience. The soldier in this state realizes the agony of extreme fear and, upon thinking of fear itself, makes himself violently afraid. Many people make themselves afraid when they think of some situation even though they know that the particular situation is not dangerous. For example, two marines start off in an automobile from Quantico for Washington on a week-end pass. Enroute the driver of the vehicle loses control of it while going around a curve and the car is smashed up. Both marines were tossed clear of the machine before it began rolling over and so missed serious injury. The chances are that the marine who accompanied the driver will always be afraid of riding in a vehicle when it is going around sharp turns at a normal speed, even though

the chances of his being involved in another accident on a turn are almost nil. But the most agonizing fear that any marine can have is the fear that he will be afraid in combat—so afraid that he will fail in his mission, endanger the lives of his men, and fail his family and his country. A knowledge of fear, of the mechanisms of fear and its control by proper training will help the soldier to avoid extreme fear. This knowledge must be imparted to him by his leaders.

First of all, it is admitted that there are no simple cures for fear. If a soldier never thought again of the things of which he acts afraid he would never become afraid of these things again. However, since this is virtually impossible, the soldier has to think differently about them. For example, the usual replacement in an outfit thinks that he is almost certain to get killed or wounded when he gets into combat. Consequently, he acts afraid, and is afraid when he thinks of combat.

But, if every marine, whether he be an officer or an enlisted man, veteran or replacement, were made aware of the true facts regarding combat he would think differently and would not make himself so afraid. This knowledge could and should be passed on to the men at Quantico, at the various Marine Corps stations, and within the Marine units themselves. For example, the newcomer to the ranks of the Marine Corps should be told that nineteen out of twenty soldiers in any army in modern warfare get through the conflict without a scratch. He should be made aware of the fact that, if he were hit, the chances are four out of five that he would not be killed. And that, if he were wounded, the chances are three out of four that he would be hit in a limb, eight to one against his being hit in the head or neck, and two to one that he would be on a full duty status within six months.

THE MARINE OFFICER and noncom can also assist the members of his unit to control their thoughts. This can be done by making the men aware of the method to be employed. It is true that thoughts can be directed into new channels by a disciplined mind. Some men avoid or eliminate fear by discussing something else, while others avoid or eliminate it by concentrating upon something else which requires a lot of attention. Moreover, few soldiers are afraid when the battle has commenced and their full attention is needed unless they are afraid ahead of time. In other words, the soldier who devotes his full time to his job during combat does not have time to be afraid. Nobody can do two things at once and throw his heart and soul into both jobs. He either divides his heart and soul, or he "fudges" and throws them into the most important task. Therefore the marine who is a real leader will keep his troops' fears to a minimum by directing their minds into other activities, away from tasks or situations of which they usually act afraid.

The third method wherein the leader can teach the soldier to control fear has to do with getting the soldier to talk himself out of fear. Some men can get over being afraid by convincing themselves of the uselessness and stupidity of a particular fear. Unfortunately, the real coward cannot do this. The expert coward might know that his fears are stupid, but he stays afraid because of habit. The amateur, seeing that his fears are foolish, can stop acting afraid. Actually, he doesn't talk himself out of the condition, but rather just quits acting afraid.

Violent physical activity, immobilizing the body by extreme muscular tension in any position, complete relaxation, and normal breathing are other ways of preventing fear. The violent physical exercise, such as running or jumping, heats the muscles, relaxes them, and turns the soldier's attention to things other than those to which he has been acting afraid.

". . . The officer and noncom in the Marine Corps must understand how to cope with fear in one of their subordinates. The must appreciate that fear can be compared to an airplane. If used by a skilled operator, the airplane can be an advantage, but is dangerous if used by an amateur . . ."

Immobilizing the body, on the other hand, takes training. The soldier should tense his feet and leg muscles, then, keeping these muscles tight, proceed to tense those of the hands and arms, then the neck, face, and eye muscles. If this is maintained for one minute the entire fear response is usually eliminated.

The reverse is true in complete relaxation. The soldier should start with his legs and feet, then his hands and arms, and continue on.

But the breathing method is undoubtedly the easiest of all to master. The medical officer will agree that, if a soldier breathes normally—that is, from 12 to 16 times per minute, it is unlikely that he will become afraid. No one, the doctor will tell you, ever breathed normally and really became scared at the same time.

So much, then, for the methods of reducing fear among our men. Think back of the many engagements fought by the Marines in the last war. Remember that the units which landed had to do the job with the men they had at the moment of landing. There were no replacement depots at hand to supply fresh men when the Marine units at Betio, the Marianas, and Iwo suffered casualties These casualties could have been reduced if the leaders knew the meaning of fear, its close relationship to intelligent leadership, and the fact that combat fatigue of this type can be eliminated. We cannot ignore it. We had best study it and make fear our ally. USMC

Stalin on War

By LtCol William C. Kintner, USA

ALTHOUGH FEW SERIOUS MILITARY STUDENTS WEST of the iron curtain think of Stalin as a military man, within the Soviet Union there is little official question that Generalissimo Stalin is one of the great military geniuses of history. The neglect, in the West, of Stalin's military prowess may be a more serious error than the excessive praise given the Generalissimo within the confines of the Communist Power. Whether or not Stalin is a genius in military affairs will be judged by history, but because of his position as the undisputed ruler of the USSR, the fact that the Soviet press portrays him as a modern Napoleon is a matter of great significance. In a dictatorship nothing is left to chance. While the Nazi military tide was flowing forward in Russia, the name of Stalin gradually emerged in the pages of *Pravda* and *Red Star* as the real architect of the Russian victory. Since VE Day, Soviet public figures have described glowingly the unique and indispensable role which Stalin played in formulating the decisive Russian victories of the great patriotic war.

Molotov gave a laudatory speech in Moscow on the 30th Anniversary of the Great October Socialist Revolution. Said the taciturn Molotov:

> In the eyes of the nations of the whole world, recognition of the fact that the Soviet people saved the civilization of Europe from the fascist vandals is also recognition of the exceptional services of the leader of communism and the great Army leader of the Soviet Union, Joseph Vissarionovich Stalin. [Prolonged storm of applause]

In a similar vein was the Order of the Day published on February 23, 1948, to commemorate the 30th Anniversary of the founding of the Red Army, issued over the signature of Marshal Bulganin, Soviet War Minister.

> Long live the inspiration and organizer of our victories, our leader and teacher, the Great Stalin.

The effigy of Stalin has, for years, been a conspicuous landmark throughout the Soviet Union. Prior to the war icons of Stalin which dotted the Russian landscape were dressed in civilian garb, but since VE day they have all donned the uniform of a Marshal of the Soviet Union.

Soviet recognition of Stalin's military talents is not

without some basis in fact. It is a mistake to think that only a graduate of a recognized military school possesses military skill. The British dictator, Cromwell, for example, had far less contact with military affairs in his early life than did Stalin, yet Cromwell became, in middle life, an accomplished soldier.

Stalin entered the ranks of the revolutionists at an early age. He was a serving officer in the conspiratorial Bolshevik Party for almost twenty years. The party, itself, was organized along essentially military lines. Stalin's revolutionary experiences trained him to think and act like a soldier. Speaking about his revolutionary activities in Imperial Russia, Stalin used such expressions as, "I was thrown into the work at Baku . . . . I was thrown into Leningrad." The party leaders disposed of Stalin as an Army commander might move divisions. As a revolutionary soldier, Stalin was always available for any task at any place or time.

At the very beginning of Bolshevik power, Stalin had progressed to the status of a field officer in the Communist Party. Although outshone by the more brilliant Trotsky, Stalin participated in several campaigns of the Civil War as a kind of roving trouble-shooter. During the Civil War, Stalin, as a trouble-shooter, showed considerable scorn for what the Bolsheviks called "military specialists"—professional officers of the Imperial Army who the Communists had to employ to train their own armies. This scorn may have resulted from the feud with Trotsky, who advocated the employment of former Czarist officers to a point shocking to some of the more orthodox Communists.

Two years after the official end of the Civil War, Stalin took over control of the Soviet State and made Frunze responsible for the reorganization and professionalization of the Soviet military forces. Under the guidance of Frunze and his successors, the Red Army progressively developed into a professional fighting force.

A parallel growth was Stalin's own development as a student of war. Stalin's direct writings on military affairs are not very voluminous, but an acute understanding of military principles appears in almost every one of his political books and speeches. Stalin's most influential work, *Leninism*, is studded with military phraseology. It reveals that Stalin frequently applied military principles to the solution of political problems. A glance at his explanation of the Soviet's war against the kulaks is quite revealing of Stalin's military conceptions. The objective of this war was "eliminating the kulaks as a class" because the kulaks (conservative, well-to-do Russian peasants) were opposing the Communist collective farm plan.

This quasi-military objective could only be won by launching " a determined offensive against the kulaks, to break their resistance." Such an offensive was to lead to the total extinction of the kulaks, who were not to be shown mercy for "you do not lament the loss of the hair of one who has been beheaded."

In undertaking a war against the kulaks, Stalin first asked, "When can the offensive be successful, in the military sphere, let us say?"

Stalin answered his question by applying the military rule of concentration of forces:

> When the people concerned do not confine themselves to a headlong advance along the whole line, but try at the same time to *consolidate* the positions captured, to *regroup* their forces in accordance with the changed circumstances, to *bring up* the rear and to *move up* reserves.

Why are these precautions necessary, Stalin asks?

> In order to be protected against surprises, in order to close up breaches in the line which may be caused in every offensive, and thus to prepare for the complete route of the enemy.

Stalin illustrated these principles of the military offensive with examples taken from the Polish-Soviet war of 1920 before concluding:

> The same must be said about the laws of an offensive on the front of the class struggle. It is impossible to conduct a successful offensive with the object of liquidating the class enemies unless we consolidate the positions already captured, unless we regroup our forces, supply the front with reserves, bring up the rear, etc.

This particular piece was written to refute those who believed the methods employed to collectivize the farms were too harsh. It closed with a characteristic Stalinist touch: "The whole point is that the blockheads do not understand the laws of an offensive."

Interestingly enough, the doctrine of offensive-mindedness, so admired by Stalin, was the keystone of all Soviet military principles prior to world war II. Frunze once put this concept into these words:

> The victor will be the one who finds in himself the determination to attack; the side which will only defend itself is doomed to defeat . . . . Hence the necessity to bring up our army in the spirit of the greatest activity.

Actually, offensive principles became as firmly rooted in Soviet military doctrine as they had been in the French Army prior to 1914. During the 1914 Battle of the Frontiers in France, the French Army undertook offensive action under any and all circumstances, even though the logic of the situation should have dictated a strategic defensive deployment. History repeated itself in the first few weeks of the Soviet-Nazi war. The Soviet forces were deployed along the rim of the Western frontier, organized as if to launch an offensive. When the fury of the German attack forced the Russians to abandon their offensive ideas, the Soviet Command was flexible enough to meet the new situation and, blessed with immense space resources, re-deployed the Red Army according to defense-in-depth principles. These principles were later praised as the very cornerstones of Soviet

strategy but, up to the time circumstances forced their adoption, they were not a primary part of Red Army doctrine. Since VE Day, however, defense-in-depth combined with the counter-offensive has been extolled as the magic formula of military victory. Stalin, himself, has placed the official stamp of approval on this military doctrine.

WE ARE INDEBTED to the magazine *Bolshevik* for a unique exposition of Stalin's current principles of war. In February, 1947, *Bolshevik* printed an exchange of letters between a Comrade Razin and Generalissimo Stalin, on the theoretical question as to whether or not Lenin's appraisal of Clausewitz had become obsolete. Razin is a Professor Colonel of the Supreme Military Academy, who for the past fifteen years has been preparing a History of Military Art (from the Marxist viewpoint, of course). In view of Razin's position, Stalin's reply to his letter is tantamount to an official exposition of the Soviet principles of war. These letters should be of value to every person seriously interested in Soviet military doctrines. The annotated letters follow:

LETTER FROM COMRADE RAZIN

Dear Comrade Stalin:

If possible, I should greatly like you to shed light for me upon the following questions:

(1) Have not Lenin's theses in his appraisal of Clausewitz become obsolete?

(2) What should our attitude be to the military and theoretical heritage of Clausewitz?

I lost my bearings in these questions when I read an artcle in our leading military-theoretical magazine *Military Thought* No. 6-7 for 1945: "Clausewitz and German Military Ideology" (LtCol Meshcheryakov).

In 1944 I had occasion in the Supreme Military Academy named after Voroshilov to speak out against a statement made by the Assistant Chief of the Academy in the Political Branch, Col Baz to the effect that Lenin had to be revised in this question. It seems to me that the article in *Military Thought* actually realizes this tenet of Col Baz. Was the editorial board right in carrying such an article?

If one analyses the principle appraisal of Clausewitz' work in the article in the magazine, it reduces to the following theses:

"The predominance of reactionary views in the works of Clausewitz."

"He did not understand the nature and essence of war."

"He stands below the military and theoretical thought of his time."

As is known, Lenin called Clausewitz one of the most profound writers on military affairs, one of the great military writers, one of the most outstanding writers on the philosophy of wars and the history of wars, whose main ideas have become in our time the absolute property of all thinking men. (Lenin . . . .)

Thus Lenin's appraisal of Clausewitz is a direct contradiction to the appraisal in the article in *Military Thought.*

If Meshcheryakov and not Lenin is right in his appraisal of Clausewitz, then the authority of the author of the article is too slight for him to speak on such a question. Moreover, he does not openly make objections to Lenin. In such an event the article disorients our officers and generals which may do damage to the Red Army.

If, however, Meshcheryakov is not right in his judgements in the matter, then his article cannot be described as other than an anti-Leninist attack which must be repulsed.

I think that herein is the political harm of this article.

Thus, this is not a "narrowly military-theoretical" question, but a political question for which reason I have decided to turn to the Central Committee of the CPSU(B) to you, dear Comrade Stalin.

Exhaustive instructions on this question are of great significance in the matter of fulfilling the order in which you noted serious shortcomings in the military-theoretical magazine *Military Thought* . . . .

[The reason why reinterpretation of Lenin's evaluation of Clausewitz is considered a political question by a Soviet military instructor is two-fold. First, Lenin, as the founder of the Bolshevik Party and the guiding genius of the Bolshevik 1917 *coup d'etat*, is the ranking deity of the Communist Panthenon. In the Communist world, statements made by Lenin cannot be taken lightly. Secondly, the Soviets have attempted to develop a Marxist point of view about every human activity, including war, strategy and tactics. To them there is no such thing as pure strategical principles, but only bourgeois or Communist strategy.]

Am I right in believing that the author of the article has not understood Clausewitz and for this reason recommends that we repudiate this heritage. For surely Engels is right when he says that "Men who judge each philosopher not according to what he contributes to science, not according to what there was progressive in his activity, but according to what was inevitably transitional, reactionary, judge according to a system,—such had better be silent."

Would it be correct together with idealism, metaphysics, etc., to throw overboard all the positive which Clausewitz contributed.

Does not Meshcheryakov repeat the mistakes of Pokrovski condemned by the Central Committee of the CPSU(B).

Or perhaps in the light of the experience of the Great Patriotic War, all the military and theoretical work of Clausewitz is appraised quite differently than it was by Lenin?

[As will be shown, Razin's reference to the Great Patriotic War is quite to the point. Clausewitz based his principles on the study of war down through the ages, the Soviets tend to over-emphasize and consider as universal the experiences of the first thirty years of Soviet Power.]

A correct understanding of this entire question is important for those who are working on the History of Military Art. I have spent around 15 years preparing an eight-volume work of which the first five

volumes have already been prepared in large degree. Two volumes published before the war were revised basically by me, particularly at the instructions of Marshal Shaposhnikov.

All the points of departure of my work are clear from the theses presented in the first volume and the preface to the entire work. It is quite obvious that erroneous initial data, if they exist, devalue this entire work regarding which I have been told repeatedly that it is needed by the Red Army.

For this reason I beg you, dear Comrade Stalin, to clarify these questions for me.

Professor Colonel E. Razin,

30th January, 1946.

[The necessity of interpreting everything, including "A History of the Military Art," according to the changing military "line" imposes a considerable burden on Soviet scholars.]

Reply of Comrade Stalin

Dear Comrade Razin:

I have received your letter of the 30th January regarding Clausewitz and your brief arguments on war and the art of war.

(1) You ask: Have not Lenin's theses in the appraisal of Clausewitz become obsolete?

I believe that the question is put incorrectly.

When the question is raised this way, one might think that Lenin analysed the military doctrine and military works of Clausewitz, gave them a military appraisal and left us as a heritage a number of directives on military problems, which we must accept in leadership. Such a posing of the question is incorrect, since in actual fact there are no such "tenets" of Lenin on Clausewitz' military doctrine and his works.

Unlike Engels, Lenin did not consider himself a military expert. He did not consider himself a military expert not only in the past, before the October Revolution, but subsequently as well, after the October Revolution, right up to the end of the civil war. In the civil war, Lenin obliged us, who were at that time still young Comrades from the Central Executive Committee, to study military science thoroughly. As for himself, he told us openly that it was already too late for him to study military science. In a strict sense, this is what explains the fact that in his remarks on Clausewitz and on his book, Lenin does not touch upon purely military questions such as the problems of military strategy and tactics and their mutual relationship, etc.

[Stalin's statement that Lenin was not a student of military affairs nor accomplished in military matters is open to serious question. This statement may be part of a program, which has become increasingly obvious, of building up Stalin as the leading Communist Immortal. Such a build-up cannot be accomplished without diminishing the role of Lenin. Actually, Lenin's own writings, his concept of organization, his conduct of the Bolshevik insurrection, and his supreme command of the Bolshevik forces during the Civil War period reveal an intimate grasp of military affairs, a grasp, incidentally, which has been ignored by many students of Communism. Twelve years before the 1917 *coup d'etat*, Lenin wrote:

"No Social-Democrat [label once used by Russian Bolsheviks], at all familiar with history, who studied Engels, the great writer on the matter, ever doubted the importance of military knowledge, the tremendous importance of military technique as an instrument in the hands of the masses [Lenin's euphemism for Communists] of the people for deciding the issue of great historical conflicts."

Does it seem likely that Lenin would completely ignore his own advice?* Stalin's statement that Lenin was a novice in purely military affairs should be taken with a grain of salt.]

In this case what then interested Lenin in Clausewitz and for what did he praise him?

He praised Clausewitz first of all for the fact that while not a Marxist, Clausewitz, who enjoyed the authority of a military expert, confirmed in his works the well-known Marxist tenet that a direct connection exists between war and politics, that politics gives rise to war and that war is a continuation of politics by force. Reference to Clausewitz was needed here by Lenin in order once again to trap Plekhanov Kautski and others in social-chauvinism, in social-imperialism.

Moreover, he praised Clausewitz because the latter *confirmed in his works the thesis*, correct from the point of view of Marxism, that a retreat under certain unfavorable conditions is the same legitimate form of struggle as the offensive. Lenin needed reference to Clausewitz here in order once again to catch the "Left" Communists who do not recognise a retreat as a legitimate form of warfare.

[Lenin, of course, did not have to go to Clausewitz to learn that a retreat is a legitimate mode of warfare. The reason for Stalin's mention of the value of retreat tactics will appear in his letter.]

Consequently, Lenin approached the works of Clausewitz not as a military man but as a politician, and was interested in those questions in the works of Clausewitz which demonstrated the connection between war and politics.

[As indicated above, it is perhaps more accurate to say that Lenin approached Clausewitz both as a politician and a military man.]

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*Further proof of Lenin's knowledge of military affairs can be found in his official biography prepared by the Marx-Engels-Lenin Institute in Moscow.

Lenin devoted special attention to the task of elaborating the Marxist's views on war. He studied and analysed from the materialist point of view the best of what had been produced by bourgeois military science. He had a high opinion of the works of that outstanding military thinker of the nineteenth century, Clausewitz.

Similarly a Russian eulogy of Lenin, written shortly after his death, shows that Lenin possessed characteristics which from the beginning of time have always been associated with military men.

In the whole of Lenin's activities the following passes like a red thread: Initiative, determination, ruthlessness, the pursuit of the enemy until he is destroyed, quick action and the concentration of the proletarian forces at the weakest spot of the enemy's front.

Thus, in criticising Clausewitz' military doctrines, we, the successors of Lenin, are not bound by any instructions of Lenin which restrict our freedom of criticism.

But from this it follows that your estimation of Comrade Meshcheryakov's article criticising Clausewitz' military doctrine as "anti-Lenin attack" and as a "revision" of Lenin's estimate, misses the mark.

[Stalin is preparing the stage for the rejection of not only Clausewitz, but of all German military thinkers, and, implicitly, all military thought that did not arise from Russian experience in the Great Patriotic War.]

(2) Should we criticise the military doctrine of Clausewitz in its essence? Yes, we should. We are obliged from the point of view of the interests of our cause and of the military science of our time to criticise not only Clausewitz, but Moltke, Schlieffen, Ludendorf, Keitel, and other bearers of Germany's military ideology. In the past 30 years Germany has twice unleashed a sanguinary war among the world, and *both times she was beaten.* Is this fortuitous? Of course not. Does it not mean that not only Germany as a whole, but its military ideology, has not withstood the test. Of course it does. Everyone knows with what respect the military men of the entire world, including our Russian military men, approached the military authorities of Germany. Should an end be placed to this unmerited respect? *Yes it should.* And for this criticism is needed, especially from us, from the conquerors of Germany.

[This a classic example of provincial thinking, especially significant, because it originates in the mind of the ruler of the Soviet State. Germany was defeated in both world wars because the almost unlimited political objective sought by Germany eventually arrayed most of the world against her. Germany was overcome by the resulting overwhelming military power which the allied coalitions were able to bring to bear against her. Despite German political ineptitude, Germany's military conduct of the two wars, especially World War II, was generally of high order. One wonders if the Russian "conquerors of Germany" are going to deprive themselves of the valuable lessons still to be found in German military experience and theory?]

As for Clausewitz in particular, *he of course has grown obsolete as a military authority.* Strictly speaking, Clausewitz was a representative of the hand-manufacturing period of war. But now we have the machine period of war. There is no doubt that the machine period demands new military ideologists. It is ludicrous to take lessons from Clausewitz now.

[Stalin's reference to the hand-manufacturing period of war is in line with the Communist thesis that there is a Marxist; i.e., economic interpretation of war. In this view, there are no general principles of strategy applicable to any age or environment. Rather, the principles of war change as man advances from the bow and arrow to the breech-loading rifle and, finally, to the machine gun and the made-in-Detroit tank. This limited, one-sided point of view results from trying to fit all human experience into a pre-conceived pattern. There is, of course, much that Clausewitz wrote on war which is dated, but there is more which still applies and will continue to apply as long as man settles his major differences by armed conflict. Col Greene, in his introduction to *The Living Thoughts of Clausewitz,* observed that most of the salient principles to be found in the field service regulations of every army in the world can be traced to Clausewitz. He likewise noted that most of the important military leaders since Napoleon have freely acknowledged Clausewitz as a prime source of inspiration. Dr Herbert Rosinsky, one of the real scholars of German military traditions, described Clausewitz' *On War* as "the most profound, comprehensive, and systematic examination of war and its conduct" ever to appear. In the face of this counter-testimony, one questions the word of the Great Stalin: "It is ludicrous to take lessons from Clausewitz now."]

We cannot move forward and advance science without subjecting the obsolete tenets and the statements of well-known authorities to critical analysis. This refers not only to military authorities, but to the classics of Marxism. Engels said that of the Russian generals of the period of 1812, General Barclay-De-Tolley was the only general worthy of attention. Engels, of course, was wrong, for Kutuzov as a general was incontestibly two heads above Barclay-De-Tolley. And yet one can find people in our time who, with tongue in mouth, will defend this erroneous statement by Engels.

[Barclay-De-Tolley and Kutuzov were the Russian Generals successively in command of the Tzar's forces opposing Napoleon's invasion of Russia. Barclay-De-Tolley was of Scotch descent, and after Napoleon defeated him at the Battle of Smolensk he was relieved of command because he was considered a foreigner, although his family had lived in Russia for over a hundred and fifty years. Kutuzov replaced this "Scot." After being defeated at the Battle of Borodino, Kutuzov initiated the long retreat to Moscow which, by over-extending Napoleon, eventually led to his undoing. Kutuzov was more cautious than Barclay-De-Tolley and it is perhaps for this reason that Stalin rates him "two-heads" above his fellow general. Few military historians find much to choose between the two in point of ability. Incidentally, the second highest military decoration of the USSR now is the Kutuzov Medal.]

In our criticism we should be guided, not by individual tenets and statements of the classics, but by the excellent instruction which Lenin once gave:

"We certainly do not look upon the theory of Marx as something complete and inviolate; we are convinced, on the contrary, that it simply laid the cornerstones of that science which Socialists should move forward in all directions if they do not wish to lay behind life. We think that for Russian Socialists, an *independent* analysis of Marxist theory is particularly essential, for this theory furnishes to Britain, to France, to Germany, to Russia, but in a different manner in each case.

[Stalin apparently agrees with Lenin's flexible interpretation of Marxism; it is a fixed, absolute doctrine when it is to the advantage of the Russians to regard it from that way, but, on other occasions, it can be interpreted if otherwise advantageous to the Russians.]

> Such an approach is even more obligatory to us in respect to military authorities.
>
> (3) As for your brief theses on war and the art of war, I can only give general observations in view of their schematic nature. There is too much philosophy and abstraction in the theses. Clausewitz' terminology regarding the rules and logic of war grates on the ear. The question of the Party nature of military science is raised too primitively. The dithyrambs in honour of Stalin grate on the ears—it is simply awkward to read them.

[Stalin's humility is more apparent than real. His name is rarely mentioned in Soviet literature or speeches without being linked to the Russian word, *vozhd*, meaning leader or fuhrer. As the Number One man of Russia, Stalin could easily put a stop to such terms of address if they really grated on his ears.]

> There is no section on the counteroffensive (not to be confused with the counterattack.) I am speaking of a counteroffensive after a successful offensive by the enemy, which has not, however, brought decisive results, in the course of which the defender collects his forces, goes over to the counteroffensive and deals the enemy a decisive defeat.

[Stalin is describing the strategy which brought Russia victory in both major invasions from the West. In each war the invader inflicted serious defeats on the Russian forces without gaining decisive results. Although neither invader had sufficient reserves of power to establish a firm lodgment in the Russian territory, both the French and the Germans inflicted stupendous damage on the Russian people before they were finally defeated. The defensive is a strategy dictated by weakness and not by strength. It is a strategy which can be adopted only if the defender has immense spaces to trade.

There are some special advantages to the strategical defensive. The aim of this strategy is essentially negative, namely the gradual attrition of the enemy. The defender has the advantage of shortening lines of communication over territory with which he is familiar. As the invader makes mistakes in his dispositions—such as the Nazi intrusion into Caucasia—he helps to bring about his own defeat. In Clausewitz' words, "the defender reaps what he has not sown." For the defender it is a matter of holding out until the tide turns in his favor but the attacker is always under the necessity of winning and winning decisively. The attacker moves away from his national base, while the defender moves closer to his own with each step that he withdraws. The defender chooses where he will defend and in what strength and he can make these choices freely unless the attacker has overwhelming strength.

Even with these advantages, the strategic defense should only be adopted as a last resort. Good strategy should keep the war in the enemy's territory rather than your own. In this light the Russian conduct of the war, which is what Stalin is obviously praising, was a most costly form of strategy. While acceptable as an act of desperation, the strategic defensive has little else to recommend it.

Nevertheless, Stalin winds up his reply with climactic praise for the strategic defensive:]

> I believe that a well-organised counteroffensive is a very interesting type of offensive. As a historian, you ought to be interested in this matter. The old Parthians knew of such a counteroffensive, when they drew the Roman General Crassus and his troops deep into their country and then dealt a counteroffensive and destroyed them. Our brilliant General Kutuzov also knew about this very well; he destroyed Napoleon and his army with the aid of a well-prepared counteroffensive.
>
> I. Stalin.
>
> 23.2.46.

[I am tempted to add, "The brilliant Stalin also destroyed Hitler and his army with the aid of a well-prepared counteroffensive."]

SEVERAL SIGNIFICANT ITEMS present themselves in Stalin's reply. First, is the glorification of the strategic defense over pre-war Soviet doctrine which favored the attack. Second, is an apparent willingness to base principles of war almost exclusively on the Russian experiences in the Great Patriotic War. Thirdly, there is evidence of an increasing provincial nationalism in the realm of military theory, a part of a trend which is becoming noticeable in almost every facet of Soviet life.

Lastly, Soviet acceptance of the counteroffensive as the safest strategical concept may provide a clue to the expansion and consolidation of Soviet power which has taken place since the end of the War in Eastern Europe and Northern China. The more space a nation has at its disposal, the more attractive, from a purely military point of view, becomes the arguments favoring the adoption of a strategic defensive. The Soviet Union occupies a larger land mass than any other nation and already is the best country fitted to conduct a successful strategic defensive. But suppose additional space moats are added to the Soviet frontiers? They will become additional land barriers which an invader will have to cross before getting near to the heart of Soviet power. Perhaps Stalin and the Politboro reason that the acquisition of new land masses contiguous to the Soviet frontiers will absolutely guarantee Soviet security by making the success of well-organized defense-in-depth followed by a counteroffensive a foregone conclusion. USMC

Passing in Review

BOOKS OF INTEREST TO MARINE READERS

Growth of Air Power . . .

AIR VICTORY—Harold B. Hinton, 428 pages, illustrated, index. New York: Harper and Brothers. $5.00

This is essentially the story of the growth and accomplishments of the U. S. Air Force. It is a worthwhile addition to military libraries.

Readers will readily note the authoritative quality of this book. Such authenticity stems largely from the fact that the author, Harold B. Hinton, is well qualified for such a literary effort. He has been intimately associated with combat aviation since the Spad and Jenny days of World War I when he served as a pilot of the 3d Pursuit Group on the Western Front. Early in World War II he was recalled to active duty, and after serving in Gen Eisenhower's London Headquarters in 1942, he returned to the United States for assignment to the Command and General Staff School. Following graduation he was ordered to the Headquarters of the 12th Air Force in North Africa, and was later designated Assistant Chief of Staff, A-2 (Intelligence), for that command. He has recently been appointed a special assistant to Secretary Forrestal to coordinate the public information activities of the armed services.

Although the publishers deny that it is an "official history," they point out that official files and records have been made available to the author. The extent to which such documentary sources were supplemented by personal recollections is indicated by the fact that Mr Hinton's "acknowledgments" read much like a "who's who" of the Air Force.

Mr Hinton's candid handling of some material definitely uncomplimentary to Air Force individuals and activities probably is directly attributable to his long career of news reporting. Like any good newsman, Mr Hinton does not eschew facts merely because they do not add luster to the subject of his writing.

The section of the book devoted to World War I Air Service accomplishments contains a good example of the author's objective handling of the subject matter. He devotes considerable attention to Gen Pershing's dissatisfaction with the combat performance of the AEF on the Western Front.

A large portion of the book traces the development of air doctrine. The author attaches considerable importance to the dispute which raged between a group of air officers (for whom BrigGen Mitchell was spokesman) and high ranking officers of the Army. Mitchell, an early proponent of independent air action, fought to free the air weapon from its function as a supporting arm for the ground effort. In order to relate accurately the facts and incidents of that dispute the author has examined and made good use of records of Congressionl hearings at which Mitchell and his opponents were witnesses.

Mr Hinton senses the significance of Mitchell's early efforts to create a "unified air force." Such a proposal was aggressively opposed by the Naval Services, which, as the author points out, was quick to assert that Mitchell's unified air force would mean the end of naval aviation even at that early phase of its development. Mitchell's and his successors' battle for unified air organization is covered in detail by the author. This feature of the book is particularly significant in that it provides valuable background information on the conflict over basic air doctrine, which clash of views, the readers will recall, was resolved by the terms of the National Security Act of 1947. Writing this law Congress rejected the views of the Mitchell extremists and provided the nation with powerful Naval and Marine air arms capable of functioning as major components of our naval power. The author quotes many of Mitchell's highly emotional and invective arguments.

However, some students of military history will regret that Mr Hinton did not expand his discussion of air doctrine development with an analysis of the extent to which Mitchell and his followers were influenced by Douhet. This indeed would have been fertile ground for investigation by an author possessing Mr Hinton's ability for historical synthesis. There is a startling similarity between Douhet's and Mitchell's assertions, for as the reader will probably recall, both advocated what was basically a common credo of power in the air. Both Douhet and Mitchell believed in independent unified air forces, the ancillary function of the ground force, and feebleness of naval power. On the rather soft foundation of these beliefs both made exaggerated claims for the capabilities of mass strategic bombing.

The similarity of their views was even more conclusively demonstrated by their fundamental advocacy of a single general staff for all of a nation's armed forces.

Military readers would have welcomed an explanation by an authority such as Mr Hinton as to how Mitchell, an American military leader, could have embraced the dogmas of Douhet extremism. Such an explanation would have been very desirable in view of the increasing curiosity regarding the results of strategic (Douhet-Mitchell) bombing in the last war, a curiosity that has been stimulated by Mr Hanson Baldwin's recent statement regarding the surprising increase made in German production under the allied strategic bombing from 1940 to 1944. Also, it would be interesting to read how Mitchell came to advocate the adoption by this country of a single general staff, an institution so conducive to military domination of a government, so inappropriate to the maritime character of this nation, and which has been so wisely rejected by Congress.

However, in all fairness to Mr Hinton, it must be realized that he has done an amazingly good job of compressing so much aviation history into one volume. In performing such a task the author has been faced with some tough decisions as to what amount of space should be accorded to the many matters he discusses. Perhaps he considered that the Douhet-Mitchell relationship could not be explained properly within the space available, and consequently, that it was better not to refer to this matter at this time.

Marine readers will probably disagree with a few points in the book. For instance, the author states that German dive bombing in Poland and France (this would be as late as 1942) "had aroused much interest in the United States." He thus implies that United States dive bombing was copied from the Germans. This is difficult to accept when one recalls the interest with which the German air attaché to the United States, LtGen Ernst Udet, watched Marine Corps dive bombing demonstrations at the Cleveland Air Races in 1933. It was while observing Marine dive bombing demonstrations that Gen Udet made the very significant remark, "A good idea—we ought to try it in Germany."

But these are few deficiencies for a book of such scope. *Air Victory* will be an important source of material for those interested in the history of the Air Force. JDH

Historical Monograph . . .

THE DEFENSE OF WAKE—LtCol R. D. Heinl Jr., USMC. 76 pages, illustrated. Washington: United States Government Printing Office. $1.25

LtCol Heinl, in *The Defense of Wake*, has achieved rare success in the always difficult task of infusing vitality and human interest into a historical monograph without at the same time sacrificing the feeling of accuracy and authenticity. So well is this done that the reader is loath

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to stop until he has read the last word on the last page. The author, presently Chief of the Historical Section of the Division of Public Information at Headquarters Marine Corps, is well known to GAZETTE subscribers.

The Defense of Wake, according to its preface, is "one of a series of operational monographs designed to provide both student and casual reader with thorough and complete narratives of the major operations in which Marine Corps units participated during World War II." To accomplish this objective, the author has drawn upon 77 various sources, the most fruitful of which were the informal reports made by the individuals concerned after their release from captivity. Despite the vagaries arising from the confusion of combat and the passage of time, these threads have been woven into a cohesive piece which is comprehensive and wholly satisfying.

Beginning with RearAdm Kimmel's study calling attention in early 1941 to the strategic value of Wake and actuating its development as an advanced base, the monograph traces the race against time in preparing for the war which was to come too soon. How Maj Putnam made the most of the meager means at their disposal is related in a blow-by-blow description of the constant air raids, the first landing attempt repulsed at such great cost to the enemy, and then the final and successful landing after 16 days of bitter conflict.

An epic within an epic is the story of the indomitable Capt Platt and his defense of the satellite Wilkes Island. There, 100 Japanese effected a landing under cover of darkness during the final assault. Shortly after daybreak, Platt and his 70 marines had eliminated the entire force and secured the island, in which condition it remained until the surrender order was received much to the consternation of all hands. Highlight of this action was the counterattack against the bulk of the enemy in a captured 3-inch gun position. With a .30 caliber machine gun on each flank providing a base of fire, an eight-man maneuver element advanced to close the invaders in successful assault.

LtCol Heinl has included an account of the little known relief expedition which sailed from Pearl Harbor only to be turned back at a point 425 miles from the beleaguered island on the day of its surrender. One can only guess what might have been the course of events in the Pacific if caution had not impelled higher authority to abandon a line of action which hindsight indicates would have been favored by fortune.

In conclusion the author points out the impact of Wake upon the concept of base defense. Costly by their absence and shown by hard experience to be vital to success were adequate air defense, a mobile reserve of infantry preferably supported by tanks, and effective communications. **RCB**

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What's in a Nipponese Name?

continued from the back cover

garu ("Tsugaru Strait"), and *Wakataka* ("Young Hawk"; compare with 2d class destroyer *Wakatake*, above, and carriers *Junyo* and *Hiyo*, whose names could be (and often were) rendered as *Hayataka* and *Hitaka*). The *Tsugaru* participated in the capture of Wake, transporting part the Second Maizuru Special Naval Landing Force; while on 3 May 1942 the *Okinoshima* landed elements of the 3d Kure SNLF on Tulagi, in the Solomons.

ADMITTEDLY, none of the warship names given thus far have been remarkable in any way—nothing at all out of the ordinary, in fact. But then one important category of ships has not yet been considered: the fleet or first-class destroyers (*ito-kuchi-kukan*), ranging in size from the old 1,270-ton *Kamikaze* ("Divine Wind") to the 2,450-ton *Wakatsuki* ("Young Moon"). Most of these ships, perhaps the fightin'est units of the Imperial Fleet, had been given meteorological names, some of them in such poetic style that adequate literal translations into English are not possible—only an approximate indication of the meanings. Striking examples are furnished by *Oboro* (Haziness Diffusing Moonlight), *Wakaba* (Fresh Verdure, literally "Young Leaves Shooting"), *Kasumi* (Haze, lit. "Mist of Flowers"), *Nowake* (Strong Autumn Wind, lit. "Separator of Fields"), and *Shiranuhi* (Phosphorescent Foam, lit. "Unknown Fires").

Most Japanese destroyers, however, were named after different kinds of mists (*giri*), clouds (*gumo*), winds (*kaze*), waves (*nami*), frosts (*shimo*), moons *tsuki* or *zuki*), tides (*shio*), and snows (*yuki*). Examples: *Asagiri* ("Morning Mist"), *Yugumo* ("Evening Cloud"), *Harukaze* ("Spring Wind"), *Hatsushimo* ("Early Frost"), *Natsuzuki* ("Summer Moon"), *Akitsuki* ("Autumn Moon"), and (figure these out for yourself) *Asagumo, Asashimo, Asashio; Yugiri, Yukaze; Harukaze, Harutsuki; Hatsukaze, Hatsuyuki; Natsugumo, Natsushio; Akigumo, Akikaze, Akishimo, Akitsuki.*

FOLLOWING are some of the big, poetically named Jap destroyers directly engaged by the Marine Corps, together with the results obtained:

Akebono ("Daybreak") and *Ushio* ("Tide"), undamaged after briefly shelling Midway's airfield the first night of war.

Hayate ("Squall") and *Kisaragi* ("February," in poetic style), sunk off Wake, the former by Battery L (Kuku Point, Wilkes Island) and the latter by bombing (VMF-211); *Oite* ("Fair Breeze") damaged by Battery L and *Yayoi* ("March") by Battery B (Toki Point, Beale Island)—all on 11 December 1941.

Mutsuki ("January"), damaged off Wake by Battery B, 23 December 1941.

Asagiri ("Morning Mist") sunk, *Amagiri* ("Sky Mist"), *Shiragumo* ("White Clouds"), and *Yugiri* ("Evening Mist") damaged off Santa Isabel Island (Solomons) by Marine dive bombers from Henderson Field, 28 August 1942.

Minegumo ("Mountain Peak Clouds") and *Murasame* ("Scattered Showers"), making another "Tokyo Express" run, badly damaged in "The Slot" by Marine and Navy bombers, 5 October 1942.

Makinami ("Rolling Waves") hit 5 December 1942 and *Nowake* ("Separator of Fields"), *Arashi* ("Gale") and *Oyashio* ("Parent Tide") badly damaged four days later by Marine and Navy planes from Guadalcanal.

Hatsuyuki ("Early Snow") sunk, *Satsuki* ("May"), *Minatsuki* ("June") and *Yunagi* ("Evening Calm") badly damaged in Shortland Islands by Marine and Navy planes, 17 July 1943.

Kiyonami ("Clear Waves") and *Yugure* ("Evening") sunk north of Kolombangara (New Georgia) by Marine dive bombers, 20 July 1943.

Yuzuki ("Evening Moon") sunk off Ormoc (Leyte west coast) by Marine bombers, 12 December, 1944.

Yes, Nippon's big destroyers had rather delicate names, but, like her other warships, they were officered and manned by tough, resourceful personnel —competent ship handlers and master torpedomen —who on many occasions proved themselves worthy opponents. The fancy names proved no handicap to hard, effective fighting. WLR

What's in a Nipponese Name?

WITHOUT A DOUBT ONE OF THE ROUGHEST, toughest fighting organizations in the Second World War was Japan's once proud and powerful Imperial Navy—the *Teikoku Kaigun*, which literally means "Empire's National Sea Army." Certainly there was nothing soft or lovely, delicate or beautiful about the *Teikoku Kaigun*—with one notable exception: the names conferred on their warships. No other people, especially any other such warlike people, could conceivably have been so poetic in selecting names for their fighting ships as were the Japanese.

American naval nomenclature—the system generally followed (before the war, at least) in naming our warships—is fairly well known: aircraft carriers named for ships of the Revolutionary War or famous battles, battleships for states, cruisers for cities, destroyers for Navy and Marine Corps heroes, submarines for fish, minesweepers for birds, and so forth. Well, the Japanese had a system, too, somewhat less rigid than ours and far, far more fanciful.

Under their system the Nipponese, with occasional exceptions, named their aircraft carriers (classed as *kokubokan*) after dragons, phoenixes, and birds; their battleships (*senkan*) after ancient provinces; battle cruisers or fast battleships (*jun-yo senkan*) and heavy cruisers (*ito-jun-yokan*) after mountains; light cruisers (*nito-jun-yokan*) after rivers; small, second-class destroyers (*nito-kuchikukan*) after trees and flowers; torpedo boats (*suiraitei*) after birds; and minelayers (*husetsukan*) after islands, straits, and (formerly) birds. Submarines (*sensuikan*) and minesweepers (*sokaitei*) were not named at all, simply numbered, the submarines having a pre-fix depending on size: "I" for large fleet-type subs, "RO" for second-class boats, and "HA" for third-class coastal units. The minesweepers were merely numbered: *Dai Ichi Sokaitei*—"Number One Minesweeper."

It is interesting to note at this point that the Japanese Navy, in marked contrast to all the other navies of the world, never named one of its ships in honor or memory of a distinguished person—whether sailor, soldier, or statesman. It even refrained from naming a ship in memory of Adm Heihaichiro Togo, hero of the war with Russia in 1904-05 and who, next to the Emperor himself, was probably the most revered man in all Japan.

The Japanese system, as outlined thus far, produced some of the following warship names:

Aircraft carriers: *Hiryu* (meaning "Flying Dragon") and *Soryu* ("Blue Dragon"), whose planes bombed and strafed Wake on December 21-23, 1941; *Junyo* ("Swift Hawk"), *Hiyo* ("Flying Hawk"), and *Ryuho* ("Dragon Phoenix"), whose land-based air groups were decimated by Marine fighter planes over Bougainville in late 1943; *Zuiho* ("Lucky Phoenix") and *Zuikaku* ("Lucky Stork"). The last two were most aptly named, for they proved to be extraordinarily "lucky" ships: *Zuiho* was the first of her class completed and the last sunk, while *Zuikaku* rivalled our own famous *Enterprise* in the extent of her war operations, participating in almost every major Japanese carrier strike and in every carrier-*vs*-carrier battle except Midway. Both she and *Zuiho* finally went down 25 October, 1944 in the Battle off Cape Engaño—last of the war's six great carrier battles (Coral Sea, Midway, Eastern Solomons, Santa Cruz Islands, Philippine Sea, Cape Engaño).

Battleships: *Fuso, Hyuga, Ise, Mutsu, Nagato* (provinces).

Battle Cruisers: *Kongo* and *Haruna* (mountains), both of which hurled 14-inch and 6-inch shells at Guadalcanal's Henderson Field during the night of 13-14 October, 1942.

First-class (heavy) cruisers: *Haguro, Myoko, Maya* (mountains), all of which bombarded Henderson Field at least once during late 1942.

Second-class (light) cruisers: *Yubari, Tenryu, Tatsuta* (rivers), which participated in both attacks on Wake and received gunfire or bomb damage on the first occasion (December 11, 1941).

Second-class destroyers: *Wakatake* ("Young Bamboo"), *Asagao* ("Morning Glory").

Torpedo Boats: *Hato* ("Dove"), *Kiji* ("Pheasant").

Minelayers: *Okinoshima* ("Okino Island"), *Tsu-*

continued on the inside back cover